

MILITARY Miniatures

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Volume 2, Number 2 • 1995

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The Allies Strike Back

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its classic
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Research Part 2

Research Special:
German IR Equipment

Dream Machine:
Early Tiger Backdate
PLUS Railcar

DML's Sherman
Firefly, M4A4, T26E3,
M46, JSU-152 AND
Panzer III J!

Plus: Mini-Men
Goes Ballistic

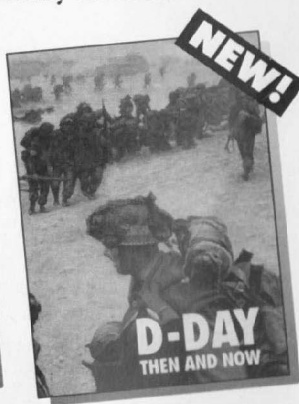
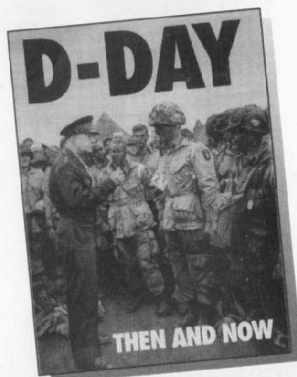
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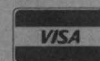


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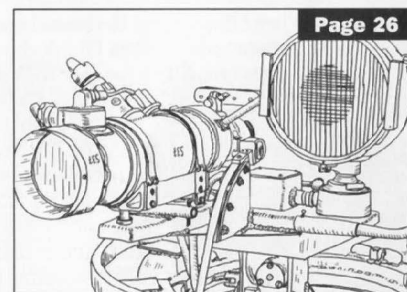
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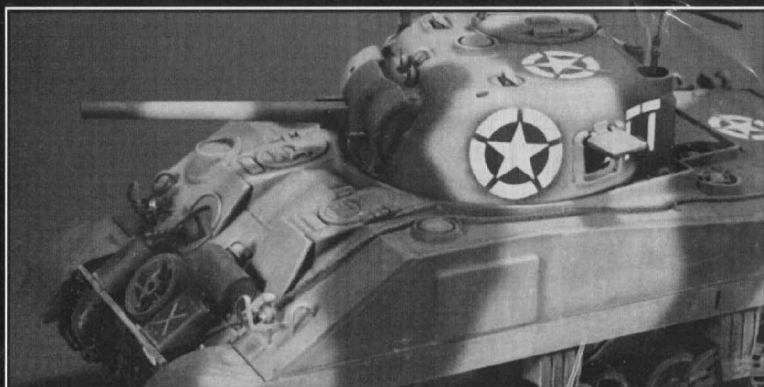
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ON THE COVER:

The spanking new Tamiya Sherman. It's an M4 this time and it's a knockout. We've shown it here with Tamiya's new U.S. Infantry set. You can read about the Sherman on page 21 and the Infantry set in the Mini-Men section beginning on page 47.

Long time readers may notice something familiar with the scene. It's the same background that graced the cover of Vol. 1 #3. That cover showed the 15cm howitzer and SdKfz. 7 heading towards the top of the page. This time the U.S. Army moves in the opposite direction. Our own goofy homage to VE day.

From Your Editor



Well, it's about that time again. Time for yet another in a series of ramblings for your friendly neighborhood editor. I feel a little like Andy Rooney when I say: "Dja ever wonder"... What I wonder is, are we ever going to see the big plastic companies release stuff that is ever so less than spectacular? Does every new release have to be the most incredible thing ever done? It seems that Tamiya and DML, and to a certain extent Italeri have been trying lately to outdo themselves in the nature of their new releases. DML has worked hard to bring us many of the really unlikely subjects. They've hit the ball out of the park with subjects like the Pershing, Maus and the Stalin. Five years ago, did you

ever think, in your wildest dreams, that you'd be building a Pershing?

Tamiya, on the other hand, has taken the old subjects and reproduced them in stunning modern detail. When I think about the hours I once spent to "accuratize" my old Tamiya Panther A... I get almost as bummed out when I think about all the money I once spent on my Gunze Sangyo Panther...

Italeri has brought up the rear with its Panther A and this year's Berge Panther and Sherman Calliope.

But what I'm looking for are all those smaller, less famous vehicles. I'm pining for the days when Tamiya wasn't timid about NOT knocking us out with its latest release. Remember stuff like the Horch heavy car, the Krupp Boxer and the 222 and 223 armored cars? These were good solid sellers. They were not the event of the millennia, but they filled a needed gap. What's interesting is that when these kits were released they were pretty cheap. And even taking in to account inflation, currency rates, etc., they're still pretty reasonable in price. They're still worth buying too. All three are in my closet, patiently waiting to be built.

Tamiya did quite few along these lines; the GPA Floating Jeep; the

GAZ Jeep; the Dingo Scout car; the Kettenkrad and the German Field Kitchen, to mention only a very few.

Italeri was pretty good at this too. At a time when Tamiya's Kubelwagen and Schwimmwagen were mere toys, Italeri did their own versions that were true scale replicas. They did many others that became staples. Their German 234 armored car series is still a classic.

So why doesn't anyone do this anymore? Excellent question. Perhaps in the race to outdo each other, the Big Guys have forgotten that you don't have to do it big just to get our attention. It can't be all about economics. You can sell only so many fifty-dollar Panthers. The excitement will eventually wear off. I imagine sales peaked fairly soon after its initial release. We all know a full armor kit costs big bucks to develop too. In comparison, take our little pal the Horch. This guy was released in 1974 (am I that old?). It contained a fully detailed suspension and interior, a soft cover with side windows and a neat little half engine. Brand new, it was around seven bucks—tops. Admittedly, now

it's up around twelve dollars, but it's still not a bad twenty year run.

I think there's plenty of room to go in this "not so spectacular" category. The M20 and M8 armored cars spring quickly to mind. The old Monogram kits were good in their day, but it'd be nice to see them done up to contemporary standards. Throw in that old Weasel while you're at it. I wouldn't mind the occasional soft-skin either. A Mack truck would be cool, or how about some other variations on the Chevy 15 ton truck. The Ford 3-ton is another interesting item. It was license built all over the planet prior to WWII and was used by almost every major combatant in the conflict. There's the

Einheitsdiesel, the Bussing Nag and the Steyr heavy car on the German side. Missing on the Allied side are a whole stable of transport vehicles, like the Diamond-T and the Scammel.

Some of the little artillery pieces would be welcome. Tamiya did the little 75mm pack howitzer and the German "leichte" infantry howitzer in white metal, but they've been AWOL for years.

Does anyone else feel the same way on this subject? Let me know your thoughts on the matter.

No big surprise.

Yes we're late—really late. It seems that it always takes us just a little longer to produce each book. This will NOT always be the case. We appreciate your patience. On the up side, we have gotten larger as promised and hopefully we will continue to do so. We're growing. This issue will see our first significant circulation number in the UK and Europe. Welcome aboard guys!

We have a bunch of new stuff cooking. First and foremost is a test issue of MMiR Lite, our new interim newsletter. This is one small solution to getting your MMiR fix and our little way of saying we're sorry for being so damn late! There should be one stuffed into every mag (if there's not, let us know). Full details on MMiR Lite can be found in the sample issue. This is entirely new territory to us, so let us know what you think.

In this issue is a veritable TON of new stuff. There are some very exciting companies to be on the lookout for. ModelKasten, Warriors and Tank Workshop are this quarter's most promising new and old names. ModelKasten has changed their distribution structure which is going make all their cool stuff cheaper and more widely available. Warriors is new on the scene and they are blowing the roof off with all their great new 35th scale (and larger) figure releases. Tank Workshop is another older name, but they will be broadening their market back into the U.S. and they have some really great kits in the works. There's more on all these guys inside. Go to it!

—Pat Stansell

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The Mail Sack



Pershing Patter

Pat Stansell's review of the DML M26A1 was very well done and very helpful as I'm now working on the kit. But the marking information as well as the unit ID for this particular vehicle I felt were "off target."

I have done some research at the Marine Corps Historical Center at the Washington Navy Yard and I came up with the following theory:

The Marines deployed only one tank battalion to Korea—the 1st Tank Battalion. Their vehicles appeared to have been distinctively marked by a company letter followed by a two-digit platoon and vehicle number. The exception appears to be "A" Company, which had no letter applied to vehicles (according to Zaloga's *Tank Warfare in Korea*).

DML's subject vehicle has only one number 5 applied in two places on each turret side, along with a twenty-inch star. There may also have been two twenty-inch stars on the engine deck. A second number 5 appeared adjacent to the yellow diamond insignia on the glacis and rear plate, along with the letters "TK." Another photograph of the same vehicle column shows tank number 5 accompanied by tank number 3. The number 3 vehicle also had a number 5 along side its diamond insignia.

My theory is this: the vehicles do not belong to the 1st or 5th Tank Battalions. They belong to the Tank Platoon, Anti-Tank Company, 5th Marine Regiment; a unit known to be at Haguri-ri on 6 December 1950 during the Chosin campaign. The vehicle numbers are consistent with a five vehicle tank platoon, while the glacis markings could belong to the 5th Marines.

I hope this additional info will be helpful to those trying to correctly depict the DML M26A1.

—A.J. Daverede

Yes indeed! That is most helpful. When I wrote the DML review, my only references were some very grainy Xeroxes from a unit "year-book" printed just after the Korean war. Good photos of AIs are a bit more shy than those of its kassin' cousin, the M26. The new Concord book and your information really help complete the picture. Thanks!

Gimme a G, Gimme an I...

I think you guys have a great little mag. Your reviews are even handed and I like the article on the Sherman tank nose covers. I would like to see more stuff like that.

Which brings me to my next point, when are we going to see more G.I. stuff from WWII? You know, the guys who won the war? Now, don't get me wrong, I can still remember when there was nothing German in 1/35th scale and I say keep it coming. But I would like to see more American stuff, like a good U.S. tank crew. Except for the old Tamiya command dwarfs, there are none unless you want to spend \$12.00 on a single resin figure. I would also like to see U.S. equipment sets with accurate packs and other gear. I wish the manufacturers would standardize equipment that should be standardized—German helmets came in five sizes but U.S. MI helmets came in only ONE size.

I guess what I'm trying to say is that, as your Sherman article shows, there was more to the WWII G.I. and his gear than meets the eye and I think the manufacturers should reflect this.

—Ron Villegas

We couldn't agree more! Some one up there must like you Ron, because Tamiya is releasing it's fabulous U.S. Infantry Set right on top of it's equally fabulous Sherman. All the gear looks great too.

In addition to Tamiya, Warriors Scale Models is releasing great little G.I. figure sets. Although they are resin, they're very reasonable in price and reflect some of the great diversity seen in G.I. uniforms and gear. Also look for stunning new U.S. vehicle and accessory releases from The Tank Workshop in the coming months.

Look for more dope on all these goodies elsewhere in this issue.

Price Wars: The Totally Final Chapter

I wanted to add my thoughts to those of Vaughn L. Shepard who appeared in V4, I's Mail Sack. A hobby should be an activity that one enjoys. If you are trying to equate hobby happiness per dollar spent, then possibly this is not the hobby for you. I always remember what a friend told me one day when I was voicing my concerns about how much I had spent on models that month. He said, "You're supposed to spend money on a hobby. That's why they call it a HOBBY." Sounded good to me.

Since you guys have finally gotten into some kind of printing schedule where the product arrives "on time" (in a relative sort of way) and I no longer wonder "who the hell is Ampersand Printing and what do they want?" Keep up the great work! I look forward to each issue and all the extra raisins that are included.

—Charles A. Whisler

V Who?

I just renewed and I have a "V2" on my mailing label. Does this mean my renewal isn't in the works yet? I hope things aren't lost—I don't want to miss any issues. I'd like to renew for 3 years if I could.

I've been building models for over 45 years. I remember the airplane fuselage halves with the pilot molded in! This kits cost 29¢ on up to the expensive ones at \$1.69. I wish I had a few of those today.

Thanks for the excellent magazine.

—Frank Harmon

Okay. Here's the deal. Once upon a time there was a little magazine called MMiR. They had a biiiiiig subscription list. One day, some meat-head decided that it would be a great idea if the mailing labels contained the FIRST issue that began a subscription and not the last issue, like most of the other magazines in the Western World. This led to mass confusion, riots, pestilence, locusts, rabies and ring worm.

The number that appeared on many of the mailing labels last time was: "V2.1." Because our database removes punctuation to streamline postal auto sorting, V2, 1, (meaning Volume Two, Number One) came out looking just like "V2." And of course we warned everyone that labels marked with the evil V2 were due to expire. What we meant was that those of you who had begun with Volume One, Number Two, should count forward by four and then renew. Confusing? You bet.

The short version: the number on your mailing label denotes your first issue. V2 and V3 are

the latest number to look out for. If your label has ANY other numbers after the V2, like 1 or 2 or /2; you're current (the current "current" mark should be either V2/2 or V2 1). If this is still confusing, call us at 407-393-6020 (or e-mail at MMiR35701@aol.com) and we'll double check your records.

If you have submitted an extra check, it has been credited to your account and will be noted on your mailing label. Anyone wishing to do so may subscribe for multiple years. Those interested should inquire for rates.

As more individuals subscribe we are adapting the more common system of the last issue notation, but this will take some time to completely implement. Thanks for your continued patience.

Sten This...

I write as a reply to the Clayton Cameron letter on the British Sten gun. In his letter he states that the DML Red Devils could not be used as Normandy paras because of the Sten Mark Vs contained in the set.

This is not true. Mark Vs were used in Normandy. One source is in the French book "Invasion Journal Pictorial - 6th June-22nd August, 1994." Photos on pages 92 & 94 show the use of the Mark V at this time. One photo even shows the "pig-sticker" bayonet attached, which would be an interesting detail to be used on figures from both Normandy and Arnhem.

—Steve Holtgrewe

You sir, are correct. I correctly stand corrected from my correction. I'm afraid I beat a little too hasty a retreat on the details surrounding the Sten. Many (and I mean many) of you wrote to submit the correct information. Let's all get back to our foxholes and commence modeling.

Ouch!

Your light-hearted format and careful approach to constructive criticism set you apart from the rest. Many times in the past we have been either bored to death with "single person/single subject" dominated mags or subjected to those that are so obsessed with perfection in scale they write letters that would make Prison Camp Commandants blush.

As in any art, (I will prove to anyone that is mentally competent that scale modeling is an art) you have unqualified critics. While positive input and constructive criticism has an excellent effect on serious modelers to retain their ability to enjoy the art, negative "fire and brimstone" criticism can only result in lost enthusiasm and dejected future artists. It is often interesting to note that many of the negative types you overhear at shows are speaking from opinion usually based on knowledge obtained from their south end as they gaze north.

Keep up the good work and I look forward to your next issue.

—Tim R. Taylor

Oh boy, I smell a dialog—anyone else care to join in?

Got a problem with any of this?

Well write to us, dammit! Send those comments to: Mail Sack, Military Miniatures in Review, 21045 Commercial Trail, Boca Raton, Florida 33486-1006, or discuss complaints, problems, wisecracks, etc. via the Internet. Find us at the handle: MMiR35701@aol.com



Survey Says!



Well all the data is in. A very fascinating look at our audience. Thanks to all who submitted your responses. Almost all those distributed came back in some form or another. That's hugely unusual for this kind of thing.

Before we get to the stats, let's look quickly at some of the comments many of you made. First of all, most folks asked "how can you give the prize away when you don't know our names?" Yes, we did say that you could submit the survey "blind." We did this so you could feel free to let your hair down. We respect your privacy. The secret of grabbing these blind responses is that we marked the return address on the back of each and then matched this up with the name and address in our database. No sweat.

We appreciated the time some of you took to complete the survey and add your comments. Some were quite thorough, with notes on the back side and extra sheets. Dudes!

We didn't appreciate those of you who didn't fill out the survey at all, but submitted the blank sheet just for the prize drawing. Give yourselves KP duty for a week.

We all enjoyed the many comments written along with the survey data. We actually read every single one (and you wondered why this issue was late). The comments were overwhelmingly positive (whew!). Many of you have stated your desire for more color and also for greater frequency of publication. Both of these are our major goals for the future. We hope it won't be too much longer for both.

Many commented on the need for better proof reading and this is yet another on-going battle. We instituted what we thought were highly effective methods on the last issue and it turned out to be the worst one yet for typos. Oh well... we keep trying.

Before we get to the hard data, here's a very brief cross section of your comments (the names have been omitted to protect the guilty):

- How about some "how-to" articles on applying zimmerit paste?
- Thanks for spoiling the "Crying Game" for me...
- I'd like to see reviews of large scale kits such as the VP monsters and also a "reader's gallery"...
- More modern stuff please...
- I'm currently subscribing to five modeling magazines, but yours is the best!
- Don't split photos over two pages...
- I really enjoy the writing. I feel like I'm talking to a person instead of reading a thesis on modeling.
- I like you guys! You're irreverent smartasses! Keep it up!
- Do you know that sometimes your spelling is terrible?
- Stop wasting space on stupid things like "New & improved with Vitamin A" and "MMiR is for lovers." Get serious.

And the winners are...

We picked three sheets out of the stack completely at random. The names were kept in a mayonnaise jar on Funk and Wagnel's porch for three days. The winners of our three fabulous and extravagant prizes are as follows:

1st Place, a Xuron TK 2100 Modeler's Tool Kit:
Charles Spaulding III, Chula Vista, California

2nd Place, a generous selection of Floquil enamels, including many of their new Military Colors:
Paul Marshall, St. Joseph, Missouri

3rd Place, a subscription to Military Miniatures in Review (we've heard of that)
Robert McNaughton, Hobbs, New Mexico

The Results

Here are the somewhat scientific results of our first survey. First some disclaimers and notes. Our readership is primarily a North American crowd, with about an 80/20 mix of U.S. and Canadian readers. We do have some foreign subscribers. However, only a very small number of surveys were returned from overseas.

Some of the categories contained a wide variety of answers. Answers were discounted that didn't get at least ten percent of the total and (obviously) the winner of each is the one that received the greatest percentage of votes. So if you don't see your answer reflected, that's why. The percentages aren't listed on everything, just where the race was close.

We won't try to make sense of much of this. Like why DML is the Manufacturer of the Year, but a Tamiya kit is the Kit of the Year. This is provided for you to ponder. The results are in their true form, we haven't skewed them towards our favorite companies, etc. This is YOUR show—it's what you told us to say. Here goes.

Kit of the year, plastic: **Tamiya's Panther G**

This kit got the most votes out of many listed. We tabulated data on the top three only. The next most popular were the Tamiya Sturmtyger then the DML Pershing.

Kit of the year, resin: **Accurate Armour M10**

We didn't realize that so many were acquainted with the line. Good job guys. The other contenders were curious. Both the MB 203 and the VP 15cm both received about eighteen percent of the vote in this category.

Manufacturer of the year (resin or plastic): **Dragon Models, Ltd.**

We kinda figured this one. They've plugged away at it for so long, their name has become synonymous with "what's new."

Most improved manufacturer (resin or plastic): **Dragon Models, Ltd.**

Not much of a surprise. Just compare the BMP-1 with the Pershing and you'll see what everyone means. Tamiya was second here, buoyed mostly by the new versions of the Tiger I, Tiger II and the Panthers.

Best value for the price (kit, accessory or manufacturer): **Dragon Models, Ltd.**

No surprise again. Most of their releases have remained consistently reasonable in price. Italeri brings up second place here.

Best aftermarket company—photo-etched brass: **Eduard Model Accessories**

Eduard has been most prolific in recent years and has had an obvious positive impact on the market. On the Mark Models brought up a very close second.

Best aftermarket company—resin, full kit: **Accurate Armour**

Apparently, this Scottish company has really crept into the North American modeling scene. This one was also somewhat close, Verlinden Productions taking second place. This was a little surprising too, as they are not as well-known for their full kits.

Best aftermarket company—resin accessories: **Verlinden Productions**

Despite the vast number of competitors, VP still rules. Seventy percent of the those who answered this question picked VP. The runner up here was Chesapeake Model Designs who garnered a very healthy twenty percent.

Best aftermarket company—decals/markings: **Verlinden Productions**

Another VP landslide. Over sixty percent picked them as their favorite decal pals. Tamiya was the next most

popular with about twenty percent.

Best aftermarket company—alternate materials (aluminum, cast brass, white metal, etc.): **Jordio Rubio**

This was a bit of a wild one. We got many different responses, but Jordio Rubio's turned aluminum barrels came out ahead. The next most popular was the Collector's Series of brass machine guns and accessories. We thought that the category was somewhat limited, but over twelve different companies were named.

Best overall aftermarket product (can be any material, but must be used to modify or complement a full kit): **ModelKasten**

What we were shooting for here was some specific product, but most of you just listed a manufacturer. That's O.K. MK came out as the most named company with On the Mark Models coming in at second.

Best magazine (it doesn't have to be this one—foreign or domestic): **You Know Who**

O.K., O.K., we were fishing for a compliment here and most, if not all of you obliged. Thank you.

Best new publication (book or booklet): **Tigers in Combat**

This was an interesting one. About half of the respondents picked *Tigers in Combat* while the balance of votes was almost precisely split between the Concord and Osprey series of books, rather than a specific title from either.

Best mail order experience: **Squadron Signal Mail Order**

This was almost a dead heat between Squadron and VLS with Squadron edging them out only by about five percent. The next closest was Battle Hobbies with about twenty percent.

Just You

Here's all about you, the readers.

It turns out that over half of you can touch the tip of your nose with your tongue. We don't know what this means, but we're terribly frightened by it.

The average number of years you've been modeling is 22, with the one guy coming in at 63 years—that's a whole lotta X-acto blades.

Average monthly budget for the hobby including kits, paint, tools, etc. is \$110.00 U.S. Some of you said you spent as little as \$10.00 per month, while others said as much as \$500.00—HEL-looo!!! (do your wives know about that?) Over eighty-percent of you have purchased a full resin kit—that must be were all the money goes... Over eighty-five percent of you have purchased link-to-link tracks.

Approximately ninety-percent of you own an airbrush and compressor. Approximately eleven percent own a lathe.

Most said that biggest hobby related expense you'd ever incurred was for an airbrush and a compressor. Those who listed a lathe said that was the biggest expense. Buying reference books was also mentioned frequently. Buying a house to put your models in didn't count.

Every single respondent to our survey was male (SURPRISE!) and your average age was 38.

A good size hunk of you said you had served in the military, about sixty-five percent. The predominant services being the Army and Marines. There were a surprising number of Navy vets too (?).

So there it is. We had fun doing it, and we're looking into other types of surveys, due to the fact that y'all are so darn responsive. Give yourselves a big pat on the back!

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3			
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5			

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1			
2			
3			
4			
5			

Item SubTotal

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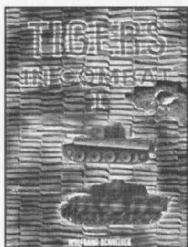
The Year in Preview



Book Reviews

Tigers in Combat I

By Wolfgang Schneider
J.J. Fedorowicz Publishing Inc.
Hard cover, 520 pages,
B&W with color illustrations.



THIS BOOK IS A LOT LIKE A TIGER. It's big, it's heavy and it packs a killer punch.

Maybe the most thoroughly documented history of any weapon system ever published, if you want to know Tigers and what they did, belly-up to Schneider's bar.

According to the author, this book is the first of two Tiger unit histories. This book covers the numbered Tiger units. The second will focus on the named units (Grossdeutschland, Waffen SS, etc.). We await the coming of the second.

Meanwhile back at the ranch... Tigers in Combat I has four main themes.

The first is aimed right between the modeler's beady little eyes. It contains a short concise history of delivery dates, coloring schemes and numbering guidelines for each schwere panzerabteilung.

The next theme starts each units' chapter with a wonderfully complete situation report. This report details day-to-day events, changing commanders (even unceremoniously sacked officers), losses, arrivals, even humorous asides (one Tiger actually broke through into a septic system in Italy).

That is followed by photos, wonderful photos, dozens of photos, no hundreds of photos. Cool photos with cool captions that you have never seen before. Photos that match up quite nicely with the sit reps. Best caption - "Tanks are mighty fine things."

If that was not enough—along comes several sections filled with stunning color plates of Tiger I's, Tiger II's and Panzer III M/N support tanks.

And last but not least are inventory and loss charts coupled with Organization tables that give every tank's individual number! Oh be still our beating hearts!

This is the kind of book you'll want to read to the kids at bedtime ("Once upon a time there was a big ol' Tiger II stuck in a Hungarian drainage ditch...Try as they might the bergepanthers simply couldn't get it out... along came the little 18-ton zugkraftswagen that could.").

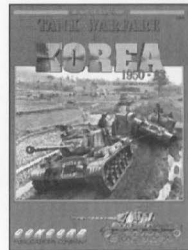
Seriously... this book offers some very good insights into the entire German Panzer existence during the war. What's surprising is that even at World War II combat ranges, "friendly fire" was very common. Even

German infantry tank hunters popped their own guys on occasion.

Cutting to the chase, "Tigers in Combat I" offers modelers, gamers, historians and any other geeks more information than they have previously been privy too. If your bookshelf doesn't have a 50-ton weight restriction, this baby belongs there.

Tank Warfare in Korea 1950-53

Armor at War Series #7003
By Steven J. Zaloga and George Balin
Concord Publications, Co.
Soft cover, 72 pages, B&W with color illustrations.



THE THIRD IN THE SERIES OF ARMOR at War books from Concord had just reached us as we were going to press on the last issue of MMiR. We definitely could have used it! These seventy-two pages are filled with first-rate photos of Army and Marine armor, with the obvious emphasis on the M26/M46 family.

A great selection of M26 shots as been assembled from the early phases of the campaign including the build-up to the Inchon landings. We were particularly impressed with the number of photos of the street fighting by Marine M26's in Seoul.

Most of the shots are clear close-ups, revealing good detail all around. Many marking questions were solved by perusing this little volume. The photos also revealed the tremendous variation in the M26's on the ground. Some are seen equipped with the earlier T66 track while others have the later T88 steel cleat type. The M26A1 and the M46 are represented too, with all the same variety.

Living up to the title, T.W.I.K. rounds out with an excellent selection of Soviet armor of the period. BA-6 armored cars, SU-76's and several versions of the T-34 are represented.

As in previous titles in the series, this one includes a well-developed, full-color section of vehicle paintings. This section mostly concentrates on the gaudy faces that were painted on M46's and M4A3E8's, but there are some interesting plates of other allied and Soviet armor as well.

A couple of actual DML kit vehicles are represented in the color plates. The M46 and the Easy Eight are both depicted as they appeared on their respective box tops. This is quite helpful in gaining the additional information needed to render these complex paint schemes.

As a finishing touch, there are four full color photos of Marine M46's on the back cover. If we had one thing to gripe about, it would be that they are not

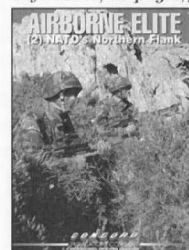
enough of these fascinating color shots. Color photos were taken in greater numbers in Korea than in WWII and it's a shame that more aren't reproduced here. Incidentally, the color of the Marine tanks pictured is very interesting, being almost a medium forest green, rather than the faded or dark olive you'd expect.

Buy this book anywhere Concord titles are found for under ten dollars.

Airborne Elite

(2) NATO's Northern Flank

By Yves Debay and James Hill
Concord Publications, Co.
Soft cover, 96 pages, full color throughout.



THIS IS THE SECOND IN A SERIES THAT explores the elite fighting forces of the North Atlantic Treaty Organization. This title covers the nations of the northern end of the alliance: Norway; Denmark; Belgium, Great Britain; the Netherlands and Germany.

The emphasis is on the uniforms and equipment of these highly specialized forces. The book is broken down into sections, each covering one of the featured nations. There are also sections on small arms, anti-tank weapons and airmobile deployment tactics. There is a vast selection of equipment illustrated. We were especially impressed with the many shots of the huge German CH-53G transport helicopters. Several are shown off-loading "Weisel" fire support vehicles. This is a fascinating little vehicle about the size of a WWII Bren Carrier. It can be configured with either a 20mm gun or a TOW missile system. There has been talk of this vehicle being released as a kit from Revell of Europe. There is a range of other equipment shown too, from Land Rovers to Unimogs.

If modern stuff is your area, you won't want to miss this one. Wherever Concord books are sold.

The Last Battle

By Cornelius Ryan

Simon & Shuster
Soft cover, 571 pages,
four photo sections plus maps.



THIS IS HARDLY A NEW TITLE. However, it has recently been re-released to commemorate the fiftieth anniversary of the end of WWII.

The Last Battle is part of a three-volume series also composed of *The Longest Day* and *A Bridge Too Far*. These three volumes represent some of the most incredible storytelling

ever to come out of the war. Written by the Irish author Cornelius Ryan, they each encompass Mr. Ryan's own personal experiences as a war correspondent, unit histories, archival information, personal diaries and interviews with many of the war's participants. Perhaps the most compelling aspect of these three books is that the participants can range from an ordinary schoolgirl whose life is turned to chaos as the war swirls around her, to the general who agonizes over each yard of territory lost.

The first in the series was *The Longest Day*. Many of you may recognize this as the famous movie, but the book is not to be missed. The second is the wrenching story of the Arnhem corridor—also a famous film. The book brings every searing detail to light and is one of the best documents of infantry vs. tank combat you're ever likely to read.

Both these titles have generally been available over the years, but *The Last Battle* had been officially out of print for some time. Re-released in 1995, this and the other titles are now available in a larger format closer to their original size and with all the original

photos in place.

As you might have guessed, *The Last Battle* deals with the climactic battle of WWII: the battle for the streets of Berlin. In many ways, this volume is the most compelling. Mr. Ryan covers all sides of the conflict; U.S., British, German and Soviet, which is quite impressive considering the prevailing political climate at the time it was written in 1966 (the book is dedicated to Peter Fechter, a young German man who was killed crossing the Berlin Wall in the early sixties).

The race for the city by the allied armies is thoroughly discussed and if you are not familiar with the real story of how Europe was being divided up at this point in the war, this is the place to start.

Among the many intriguing story's is the tale of the Operation Eclipse dossier. Operation Eclipse was the Allied plan for the division of post-war Europe, specifying zones of occupation and the various jurisdictions of the soon to be victorious powers. Up until very late in the war, the German high command was fully invested in Hitler's misguided theory that the allies were disorganized and at odds over the territories they were occupying. Hitler had further hoped that these divisions would eventually shatter the alliance and win the war for Germany.

A complete set of Operation Eclipse documents fell into German hands in January, 1945 and the plan shook many senior officers right down to their jackboots.

The Last Battle is full of such interesting anecdotes and we give it and its companion volumes our highest recommendation. Try to read them in chronological order—many characters are traced throughout all three books.

You can easily find all these titles at most local bookstores. Many of the major chains have stocked them to coincide with this "fiftieth anniversary summer." If you have difficulty locating them, contact the publisher at TOUCHSTONE, Rockefeller Center, 1230 Avenue of the Americas, New York, NY 10020.

Achtung Panzer No. 5 **Sturmgeschütz III, Stug. IV & SIG. 33**

Model Graphix Publications

Soft cover, 120 pages, black & white and color.



THIS IS THE FIFTH TITLE FROM Model Graphix Publications in the "Achtung Panzer" series. What's that you say? You never heard of Model Graphix and *Achtung Panzer*? Well, let us fill you in baby!

Model Graphix is sort of the ultimate hobby magazine in Japan. It covers the entire spectrum of the hobby experience there, from Gundam, Godzilla, and Speedracer to military aircraft, armor and figures. It's a full color extravaganza that comes out monthly and it's approximately one hundred-seventy pages long. The greater Japanese ad dollar makes this financially possible. Figure if such a thing were produced here, it would cost about twenty dollars a pop! Occasionally copies make it to our offices and we have a ton of good fun identifying all the cool new products (we can't tear them away from Eric, the Godzilla freak).

A reoccurring feature of the magazine is the two-page article "Achtung Panzer." This is two pages of highly detailed drawings of a specific German tank. All the fittings and details of the subject are faithfully illustrated in the most minute detail. The series sometimes runs for many months. Excellent stuff. Major drawback: the text is entirely Japanese. Major plus: a picture speaks a thousand words.

Enter the *Achtung Panzer* books. These draw upon the many years of accumulated drawings, supplemented with a comprehensive series of photos and highly accurate line drawings all wrapped up in a great little package. The first in the series was on the Panzer IV, the second on the Panzer III, the third a revamping of the original Panzer IV subject and the

fourth book covering the Panther. MG is also the source of the *Panzers at Saumur* books which are similar in approach.

Achtung Panzer No. 5 covers all the variants of the German Sturmgeschütze series, with each successive variant covered in order of its development. Hundreds of detailed sketches illustrate virtually every square inch of the Stug from the "O" model to the Stug IV. The illustrations are very complete. Every possible component has been sketched out and even an amazing two-page section of "on-vehicle" gear is provided. Each variant is further illustrated by gorgeous four-view line drawings.

Also included in number 5 is a small section on the rarely seen Sturminfanterishütz (beg pardon?). This was the funky little Panzer III chassis with the sig 33 mounted inside a basic armored superstructure. Photos and other specs have been very rare on this vehicle. No longer! A complete selection of photos is presented including the Kubinka vehicle and several wartime shots—many of the roof area. This may be the first time they have appeared in print.

The crowning glory is a special section showcasing David Fisher's terrific 1/9 scale scratch built Stug G. Dave finally gets his due! Very few photos of this über-model have ever been published. Quite a treat.

Achtung Panzer No. 5 is written completely in Japanese, but nearly all the captions now have very competent English translations. This latest volume is supplemented to a much greater extent with photos than any of the previous books. Many of these photos are of contemporary restored vehicles. This has also increased its size, it's about thirty pages longer than its cousins. Get excited about *Achtung Panzer No. 5*! Two thumbs up, five stars and all that jazz.

Look for Model Graphix books at your local hobby shop or wherever Model Graphix publications are sold.

New Products



Custom Dioramics

We've received a bunch of spiffy samples of new CD accessory and building items. **Cobblestone Sidewalk** # CD-1108, is a versatile kit containing four straight sections of sidewalk cast in white plaster. Two corner sections are provided; one inside and one outside. \$15.95 retail. This is part of CD's larger "Urban Series" which is designed to allow the modeler to create a variety of city-scapes with several different buildings and accessories. Many of the buildings in this series also give you the option of constructing them undamaged. KNEE-TOE!

Also provided in sample form was a sue-wheat little HO-00 scale **Governmental Building Ruin**, CD 8001. This little beauty is full of intricate and ornate

details. It's entirely cast in tan resin and would be perfect for any 1/87 to 1/72 scale diorama. \$14.50 retail.

The guys from the "Great White North" also have two new Italian Buildings to add to their already extensive range. These are CD-137, which is a kind of town ruin complete with hex-shaped fountain, and CD-138 which is a villa type ruin that includes pre-colored roof sections, resin details and a courtyard sections. These products will be available in the fall. Names and pricing are TBA.

Something completely new from CD is a 1/35th scale **German replacement head set**. There are four different heads, two of which are wearing the "Stahlhelm." Two sets are provided in each pack—a great value. Look for number CD-35002 and a retail of \$5.95. Available now.

Check out Custom Dio's ultra-cool, full-color catalog to get completely acquainted with their line. Ordering info and other details can be found in the Custom Dioramics' ad on page 10.

Dragon

Dragon has been a bit quiet as of late, but to those of you who haven't heard, let us catch you up. The super, ultra, huge secret release 6050 will be the **German Jagdtiger**. Not exactly what we were expecting, but it will be welcome nevertheless. A totally accurate one has never been done and if it's up to DML's current standards it will be a treat. This should be available right now.

There was a well-publicized contest to guess the subject of this, Dragon's fiftieth armor kit. Here are the results of the contest:

1st prize: Mr. Yusuke Ishiguro of Japan

Mr. Ishiguro wins the entire collection of Dragon's 100 different 1/35 scale military kits, including kit number 6050.

2nd prize: Mr. James A. Forbus, USA

Mr. Forbus wins the entire collection of Dragon's 50 different 1/35 scale armor kits, including kit number 6050.

There were also thirteen winners of 6050, but space does not permit listing each of them here. Congratulations to all!

The next scheduled "regular" kit release is a JS-1. This is a real interesting choice for a kit. If it doesn't ring a bell, it's the very early version of the JS series that mounted the 85mm gun. The front end was a bit different too. This will be an excellent addition to DML's line of WWII Soviet stuff. Just think, we wanted a JS for years and now we have six to choose from! (that's JS-II, JS-IIIm, JS-II Chinese Volunteer, ISU-122, ISU-152 and now JS-1).

This is listed as 6052 and will be a September release. Price TBA. Hey wait! Was that 6-0-5-TWO? What happened to 6051? Something to ponder while



you're waiting for your superglue to set-up...

DML has generated a lot of hub-bub over their acquisition of the **Gunze Sangyo** line of armor products. If you haven't heard about this, they will be re-releasing these items with all of the brass and metal parts newly tooled in plastic. The first is the Panzer III J, reviewed in this book. Next up will be the **early Jagdpantzer** (9012). This was one of the better Gunze kits and we're looking forward to its arrival. The price will be \$37.98. Sure beats \$110.00! The Jagdpantzer should be out any minute.

All of these items will be in the Imperial Series and they were listed in the catalog in this order: 9013, **StuG III f8**; 9014, **StuG III G "sturmhalbsetze"**; 9015, **Panzer III M/N** and 9016, **Late Panther command version**. The order of their release is somewhat different. Next up is the **StuG G** (9014). This is slated for September release and will be priced at \$37.98. Next is 9016, the **Jagdpantzer late (Sdkfz. 173)**. This is a September/October release and the retail will be \$37.98. Prices and precise release dates on the remaining items are all TBA.

All of these items will still be sold in Japan under the Gunze Sangyo label, while in Europe they will be sold under the Revell name.

It bears repeating from last time that the following kits were listed in Dragon's '95 catalog but have not yet been announced: **Flakpanzer IV (3cm) Kügelblitz** and the **Sturmgeschütz IV (late)**. Numbers 6040 and 6042 respectively. Release dates and prices TBA. We assume sometime this year.

A **GSC-9** figure set has been announced. This will be another in the series of special reaction force sets, this time being the German SRF. This is item number 6505 and it will retail for \$8.50.

In the big scale stuff, we're stilling waiting on the final listed item; 1605, **Screaming Eagle, Normandy 1944**. This item will be a September release with a \$14.98 retail. These sets all have proved themselves to be worth the price and we look forward to more. See the Mini-Men section for thoughts on these new figures.

Floquil-Polly-S

Floquil has announced its all new line of acrylics called: **POLLY Scale**. POLLY Scale acrylics have been in development for over three years and this a completely new formula from the earlier Polly-S acrylics.

We had the opportunity to test out the new colors and we must say: we like 'em! We used POLLY Scale to coat all the figures appearing in the Mini-Men section of this issue. The paint performs very well and those of you who didn't prefer Polly-S may just fall in love with POLLY Scale. First, the paint has little or no discernible odor. We used it with both the recommended thinner (which does have a slight odor) and with distilled water. Both gave excellent results.

The paint sprayed very well and seems to have much better adherence capabilities than Polly-S (it's much harder to get off your hands too!). It covered more quickly and stuck much better, giving an almost "velvety" smooth finish.

These same adherence factors were present when brushing the paint on. Many here felt that this was the best adhering acrylic paint they had ever used. In some ways, it performed like an enamel and the added bonus of water clean-up make it all the more attractive.

According to the data we have received from Floquil, the POLLY Scale paints will mix with the older Polly-S colors. However, we didn't get a chance to try this out. We'll keep you appraised on this in a future issue of MMiR.

The POLLY Scale line will initially consist of 39 military and 30 railroad colors with an additional 200 items to follow next year. There's little to loose by trying a bottle out. The 1/2 oz. bottles will retail for \$1.99 and the 1 oz. \$2.49. Along with the colors, clear, flat and satin finishes will also be sold. These will be offered in the 1/2 oz. bottles for \$1.79 each. We think you won't be disappointed.

The other exciting news from Floquil this year is

their introduction of **The Floquil Military Color Guide**. This guide will contain over 15 chapters and actual paint chips for nearly 300 Floquil enamels matched to original color samples and standards.

Standards will include: Federal Standard FS 595; U.S. WWII Army-Navy (A/N) specs and German WWII RLM orders.

Individual entries will feature out-of-the-bottle camouflage matches and approximations for all major combatants since 1914.

Please allow us this small digression: IS THIS COOL OR WHAT?!! We can't wait to get our hands on this!

The Floquil Military Color Guide will be available in the form of approximately 100 shrink-wrapped, loose-leaf pages and this includes the actual color chips. This will retail for \$29.00 (post paid) and will be available exclusively from Floquil-Polly S Color Corp., 4715 STHWY 30, Amsterdam, NY 12010-7417. Telephone (518) 843-3610. Payment can be by money order, MasterCard or VISA.

Frederick J. Tyson Presents

If you have never heard of this company, we're here to tell you they have quite an interesting product line. Frederick J. Tyson Presents specializes in unique scale display replicas of literally all types of vehicles. Their line includes an extensive series of aircraft and spacecraft replicas, armor and soft skin military vehicles, figures, construction equipment and ship replicas—even airship models! The catalog is worth a look, as the line truly needs to be seen to be believed.



What got our attention recently was that Frederick J. Tyson Presents will be bringing in the new 1/20th scale **Tamiya M1025 Hummer**. As some of you may know this kit is a interesting combination of kit and scale replica. They will be offering it in two variations; unbuilt or fully assembled in a case. The price is \$195.95 unbuilt and the built and cased version sells for \$299.95. They will also offer other options at an additional cost, such as custom paint jobs and alternative marking options. The vehicles are currently shipping in U.S. Marine Corps temperate markings.

These types of hybrid kits are beginning to occupy a fascinating niche in our hobby. Look for Frederick J. Tyson Presents to offer other types of vehicles like this in the near future.

A fully illustrated catalog and complete product information can be obtained from Frederick J. Tyson Presents, PO Box 159, Dept. MMR-94-07, Covington, OH 45318-0159. (513) 473-5726.

Hobby Bounties

Hobby Bounties is a Singapore firm that will be marketing the old Bandai range of 1/48th scale armor kits. These items are currently being manufactured in



China under the name "Frog."

We have received sample of the M4A3 and the King Tiger and, whatta know? They are the old Bandai kits. Way cool!

This will be good news for many, as this line was fairly popular in its day and the kits have been much sought after ever since. Most of them contain complete interiors as well as engines.

There are currently thirteen kits listed: **Mk. III Valentine; Hetzer; KV-1; Panzer III/M; King Tiger; M4A3 76mm Sherman; Panther G; Wespe; SdKfz. 7 halftrack; Panzer II F/G; Japanese Type 74; French AMX-30** and the **U.S. M60A1**. And more are on the way.

The kits may be ordered direct from Hobby Bounties, c/o 865 Mountbatten Road #02-91/92, Katong Shopping Centre, Singapore 1543, Singapore. Telephone (65) 4401890, fax (65) 3441782. Each will retail for \$16.00 U.S. Postage is 10% for surface or 20% for airmail.

Hudson & Allen Studio

These guys continue to amaze with their latest diorama materials. We've received five new products for evaluation: #9503, **Tall Grass**; #9504, **Mud**; #9505 **Pine Boughs**; #9506, **Hay** and #9519, **Fall Grass**.

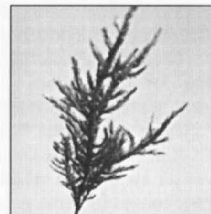


The first product is a pre-colored natural hair product and at first, it looks a little creepy (Honey, where's the dog?). But once it's been removed from the bag and teased out, the results are quite convincing. The product is colored in a summer green color and the color gets lighter towards the ends of the "blades."

Next up is "Mud." Not a terribly flattering name for a small bag of brown powder, but this stuff really works great. It can be used right from the bag as a pastel-type dusting material. No more shaving your pastel sticks! The color is perfect for dusting over all areas of a road-weary vehicle. Mixed with water it becomes an entirely different product (It's a floor wax! It's a dessert topping!). Mixed with water and applied in it's goopy stage (technical term), it represents very realistic scale mud. We used this on the Panzer III J on page 40. The great part about it is that if you don't like what you did, you can wet it and move it around.

"Pine Boughs" are just that. Little miniature pine boughs. How'd they do that? These are among the coolest new products we have seen this year. The boughs are apparently some type of plant material and the really uncanny thing is that the branches have thousands of teeny-tiny needles on them. Weird! This product is also pre-colored and is the totally convincing deep green color of ever-green trees.

The product comes out of the package moist and somewhat soggy. This causes some of the longer branches to curve rather unnaturally. After being out in the air for a few days



the branches began to straighten out. The longer branches can be clipped back with sharp scissors to prevent this and to shape them to your individual taste. The instructions note that the material may need to be re-moistened periodically and a method is described for this. These boughs would look fabulous tucked all around the surface of a Tiger or Panther, especially those from the Ardennes battles. Don't miss this one!

Hudson & Allen's "Hay" is yet another neat little item. The package contains perfect little scale hay, colored (of course) like hay (hey!). This is the perfect thing for any farm scene and it would look great in carts and on the ground. It's also good for camo situations like anti-tank guns and teams such as those seen in Normandy.

The final product is "Fall Grass" and this is identical to the Tall Grass item except for its color, which is shades of light brown.

All the Hudson & Allen products represent terrific value for the money. Each of the listed products retail for only \$4.95—and this includes postage in the U.S. They're worth a lot more, in our opinion, but don't tell H&A!

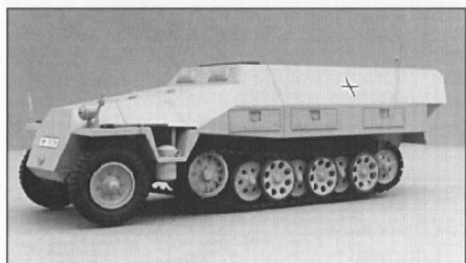
Find all Hudson & Allen products at your favorite hobby shop or order direct to: P.O. Box 82341, Rochester, MI 48307-1571. (810) 651-2002, Fax (810) 615-0600.

Jim Shirley Productions

JSP has entered the big kit business in a... well, in a big way. Their first armor kit was 120mm M1A1. This is a complete kit molded all in resin. To give you an impression of a 1/16th scale armor kit, this one measures about 19 inches long and about 9 inches wide. It weighs in at a hefty ten pounds and the box contains over 250 parts. This item number JSP003 and it will set you back five-hundred large (\$500.00).



The newest item available is the **German WWI 251/D halftrack**. This is item number JSP013 and it retails for \$385.00.



Three more full kits will follow this year and they are: JSP014, **Soviet T-72M1** (\$475.00); JSP015, **M60A3** (\$500.00) and JSP016, **M3 Halftrack** (\$395.00).



The advance photos of all these items look pretty good and we're anxious to get our hands on one (just for a minute or so—honest), for a more detailed peek.

They intend to release yet another kit this year and they are looking for suggestions. So bombard them with all your ideas!

An extensive array of accessory items is also online. They range from pack and crates to small arms and 50 cal MG's.

Postage on JSP kits is \$5.00 for the accessory items, and \$16.00 for the larger kits. This is for domestic postage only and foreign orders should add 15% of the total order. JSP makes it real easy—they take MasterCard, VISA and AMEX. You may also purchase by wire transfer through the Huntington Bank, Maitland, Florida USA. ABA#063112692, account number 5011192. If you go this route, it might be a good idea to warn JSP that your dough is on the way.

Contact them at Jim Shirley Productions, 120 Vista Oak Drive, Longwood, Florida 32779. Telephone (407) 333-4407, Fax (407) 333-0220.

Kendall Model Company

Who? KMC, you know, the guys in Miami. Still doesn't ring a bell? Well there's a bit of an interesting story behind this one. KMC is made up of two Verlinden alumnus, one of whom is Willy Peeters. And yes, he's a real guy and not a made up name like we thought.

He and his partner picked, of all places, the sun-baked streets of suburban Miami to set up shop. Quite a change from Belgium we think.

They are producing a small range of 1/35th scale products with more (it's said) on the way.

The first four items have been sent to our offices and in advance of a complete review we offer the following observations.

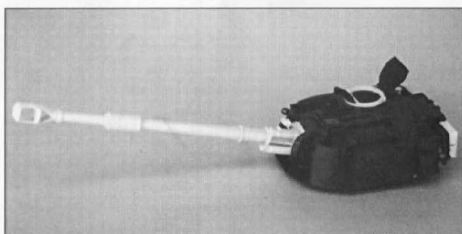


The first product is a **farm cart**, the type you might see in any European setting. It's carefully cast in tan resin and would make a very nice addition to any diorama.

The second item is a hard top conversion for the Tamiya **M151 "Mutt"** (no one ever really called it that, but...). This is the common MP configuration and the kit contains the top, doors, warning light and post, and a small sheet of photo-etched brass to form the antenna mount and other small pieces. This is a beautifully simple little conversion and would make great "week-end" project.

Third up is a detailing set for the Italeri **M109 SPG**. The kit includes a highly detailed resin gun barrel, muzzle brake and base, along with parts for the commander's hatch and rear stowage. Long overdue help for this kit and sure to be popular with the modern armor buffs.

The fourth item is the small **7.5cm infantry gun** used by the Germans early in the war. This a complete kit, with resin and photo-etched parts.



All of the products provided were very nicely done and KMC should be proud of these first efforts. They are worlds above much of the competition. The instructions,

in particular, were very sleek. They all contained very skillfully drawn exploded view drawings. It will be interesting to see what the future brings from this talented group. Pricing and availability on all items are TBA.

We have been asked to refer dealer inquiries to Pan American Distributors, 1975 NW 36th Street, Miami, FL 305-635-3134. They will be handling all hobby shop and wholesale matters.

If you wish to contact KMC in regards to comments, criticisms or requests, they can be contacted at: Kendall Model Company c/o 18496 South Dixie Highway, Box 373, Miami FL 33157.

Kirin

We have received notification of the following new yummys from the resin machines at Kirin. All in 1/35th scale.

A **Quad Gun Truck** Conversion is number 28522. This will most likely be another conversion for the AFV Club M35 truck with the addition of the quad .50 caliber rear mount. This guy will retail for \$39.98.

Next is a **T-90 conversion** and this will be add-on reactive armor and other bits to upgrade the DML T-80 to the current Russian MBT. Retail TBA.

Number 25023 is **Israeli Mechanized Infantry**, 1980's. This will be two full figures and a half figure for use on and around a military vehicle. \$29.98 retail.

Full Metal Jacket is the title of item number 25022 and this will be a three figure vignette of two Vietnam-era Marines assisting a wounded buddy. Sounds like a good one. \$29.98.

One 1/16 scale item on the list is **Wittmann & Woll, Villers Bocage, 1944**. This will depict Panzer ace Michael Wittmann and his loader, Balthasar "Bobby" Woll. How you get "Bobby" from "Balthasar," is still a mystery. What you do get is two figures posed to represent the crew (or part of it) at the time of their famous battle at the Villers Bocage.

No photos were available at press time and all release dates are TBA. We'll bring you more info as it becomes available.

MB Models

MB has finally announced its long-awaited **British Mk VI Light Tank**. This will be a complete kit with ModelKasten tracks and brass fenders. It will retail for \$115.95 and it is number MB-1077. The precise release date is TBA.

MB will release a series of conversions over the next several months for the new DML Panzer III J. These will be MB-1119, **Panzer III E**; MB-1120, **Panzer III F**; MB-1121, **Panzer III G**; MB-1121, **Panzer III G** and MB-1122, **Panzer III H**. Each will consist of a new upper hull and turret in resin with various white metal accessories.

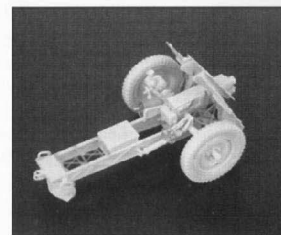
Find MB products at your local hobby shop.

ModelKasten

Well you can't say that this hobby isn't full of surprises. Just when we had just about written off our friends at ModelKasten due to track sets that cost \$88.50, things seem to be loosening up.

The distribution arrangements of all these products have suddenly and abruptly changed. What this means is that the prices have all crashed right back down and availability will finally be widespread.

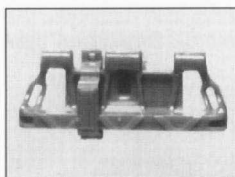
While we're on the subject, let us take this opportunity to re-acquaint you with the products. The ModelKasten line is composed of basically four different types of products: the non-workable tracks ("K" series); the workable track sets ("SK" series); replacement roadwheel sets ("W" series) and super detailing sets. These have stock numbers that start with a E, C, M or an A.



The line is actually quite extensive, including some incredible detailing sets and even a full kit or two. For whatever reason, the entire line has never been completely available in North America.

The non-workable sets are probably the product most familiar to our readers. ModelKasten originated the whole concept of link-to-link tracks when they introduced their first Panther set, way back in 1986. Over the years this aspect of the line has grown to nearly thirty different products.

The workable sets came on the scene a few years ago and these are a totally different animal. These sets are excruciatingly detailed and are fully articulated when complete. The level of intricacy is quite amazing. For instance, there are small pins included for each link and those links which have hollow guide horns contain unbelievably small locating pins and holes (we're talkin' sub-miniature here). Many of these workable sets contain extra parts to modify the suspensions of the designated kits. The ZSU-23 set, for example, contains the complete set of accurate wheels, hubs and sprockets—along with the workable tracks. The newest set for the **Panzer III/IV** (SK-17 and 18,



The very latest items in the SK series are two spare track sets that act as companions for SK-17 and SK-18. These are not just links in a bag, but rather each is a complete system for displaying the spare links on any of the mid and late production Panzer III/IV's. Each contains brackets for fender mounted spares, front and hull top mounts. The sets are even complete with castings of the weird half-wing nut latches of which the Germans were so fond. These nuts, by the way will also be available separately as item number A-5.

We could fill this entire section with just this subject, but let us refer you to the RZM ad on page 15. This contains the complete product list and prices. We will also be bringing you much more up-to-date information on any and all new ModelKasten products in the future. Don't miss the evaluation of MK products on pages 31 and 40.

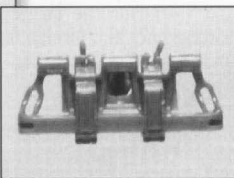
Squadron Signal Mail Order

The boys at Squadron have begun to just about take over as the specialists in exotic foreign products.

Zvezda of Russia is now manufacturing several items exclusively for them. The line contains some very intriguing items. Here is a current listing:

ZV3501, **T-60 Light Tank**, \$16.00. ZV3505, **ZIS-3 76mm M42 Soviet Gun**, \$9.50. ZV3511, **WWII German Machine Gun Team**, \$6.00. ZV3512, **WWII**

the mid and late production versions) in the SK line even includes an articulating idler assembly for the Tamiya Panzer IV J. Dare we say—WOW!



German Assault Troops, \$6.00. ZV3513, **WWII German Waffen SS**, \$6.00. ZV3514, **WWII German Paratroops**, \$6.00. ZV3515, **Semovente M40-75/18**, \$16.00. ZV3516, **Ansaldò M13/40 Italian Tank**, \$16.00. ZV3517, **WWII Soviet Artillery Crew**, \$9.50. ZV3519, **M3 Scout Car**, \$20.00. ZV3522, **Panzer Ib Light Tank**, \$16.00. ZV3523, **Panzer I Command Tank**, \$16.00.

All of these except the T-60 are ex-Italeri items and many of them have been missing from the shelves for some time. We have received samples of all these products and they are indeed the Italeri items. We give them all a big thumbs up. Boy, the price is right too. The T-60 is not quite the same quality as the other pieces, but it still looks worthwhile.

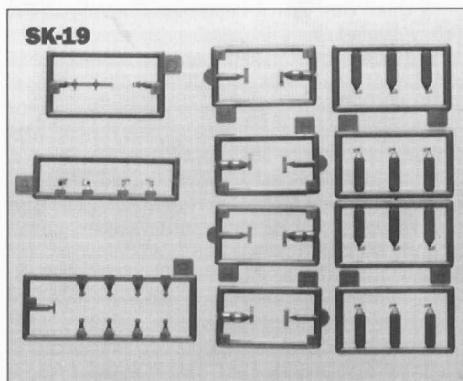
Also in the bag is a **wz.34 Polish Armored Car**. This is by the Polish company, Encore. The product is very basic, but again, it can undoubtedly be built with care into a nice little model. Great value too, coming in at \$9.95. Look for order number EC3501.

SMO is also representing the **Mini-Art** line of products. If you are not familiar with this line, it contains a wide range of subjects, with an emphasis on conversion sets and smaller kits.

The line currently consists of the following items: MR 3501, **German 2.8cm PzB41** (\$32.98); MR 3502, **German 10.5cm LG40 Recoilless Gun** (\$32.98); MR 3503, **German Early Hetzer Conversion** (\$32.98); MR 3504, **German BeoPanther Conversion** (\$37.98); MR 3505, **German 7.5 PAK 97/98 (F)** (\$42.98); MR 3506, **German Mortar Set** (\$40.98); MR 3507, **U.S. 75mm Pack Howitzer** (\$34.98) and MR 3508, **U.S. Modern M1A1 Mine Roller Set** (\$62.98).

We have lately received samples of both MR 3506, the U.S. Howitzer and MR 3507, the German Mortar set.

The howitzer is similar to the old Tamiya white metal kit. It's completely molded in tan resin and includes several rounds. By the way, "pack" in this case refers to the fact that this field piece could be broken



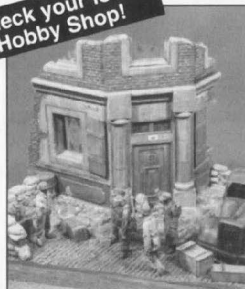
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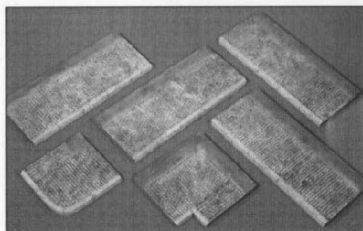
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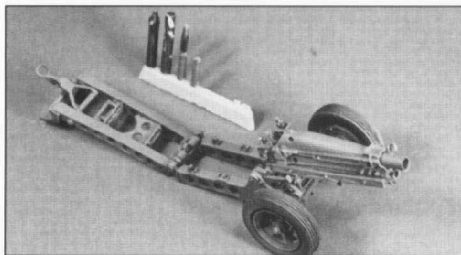
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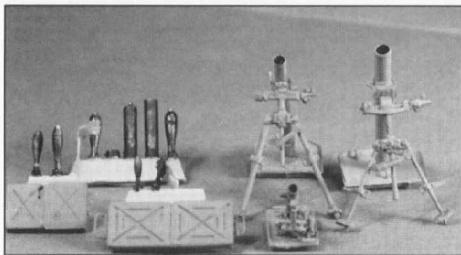
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down and packed off to rugged and remote firing positions. This made it popular with allied forces serving in Italy and with the Marines fighting in Okinawa and Iwo Jima.



The German mortar set is composed of three different mortars; the 20mm, 80mm and the 100mm. Rounds and cases are supplied for all the types and one interesting feature is that many of the rounds have a hand molded right on. This eliminates that "floating" effect seen on figures with open cast hands.

Future releases for Mini-Art include: MR 3509, **Panzer IV "Heuschrecke,"** the German Amphibious Panzerfrare (based on the Panzer IV); MR 3510, the **German Heavy Transport Trailer (Ah 642)** and MR 3512, the **WWII Hungarian TOLDI Tank**. Prices and availability are TBA.

Tamiya

Our Red and Blue pals appear to be resting on their laurels—for the time being. The big news, of course, is the **Sherman**. And you can read more about that on page 21. Released in tandem with the Sherman is a great little **U.S. Infantry set**. This graces our cover along with the Sherman and their full story is in the Mini-Men section.

Other big news is the long-awaited release of a **mid-production Tiger I**. This was also on display at Shizuoka. We've been waiting for this one ever since their late Tiger I of several years ago. The kit will include the rubber-tired roadwheels and our sources tell us it will attend to many of the small details that distinguished this model from both the early and the late versions. No word on price yet, but look for the Mid-Production Tiger I in September.

Also on display at Shizuoka was a new addition to the growing Tamiya figure line: a **German mortar team**. This appears to be the 100mm weapon, with figures, ammo and other gear. We'll have more information as it becomes available.



Tamiya's Mid-Production Tiger I

Tamiya held its first annual "Tamiya/Con" model contest and show on June 24th. This was a big exhibition and contest held at Tamiya of America's headquarters in Aliso Viejo, California.

The armor turn-out was said to be good and a best of show was awarded to Dave Fischer's nearly



TAMIYA-A (1-800-826-4922). Monday through Friday between 9 and 6 pm PST.

Testor/Italeri

Here is a repeat of some of the items we are currently on the lookout for from Testor/Italeri.

September: 286, **Tiger I Ausf. E**, \$23.00; 287, **Mercedes Benz Truck**, \$18.00; 281, **JS II** (revised date), \$23.00; 282, **T-34** (revised date), \$18.00 and 352, **Soviet Cavalry**, \$6.00.

December: 285, **Bergepanther**, \$23.00; 288, **M4A3 w/Calliope rocket launcher**, \$23.00 and 289, **SU-100**, \$18.00.

For more information on any Testor/Italeri product contact: The Testor Corporation, 620 Buckbee St., Rockford, IL 61104. (815) 962-6654. Fax (815) 962-7401.

The Tank Workshop

All you kids gather around the fire and get comfortable. We want to tell you a little story. It's about a group of guys who called themselves Panzer Concepts. Their first kit was introduced at the IPMS Nationals in 1993 and it was none other the M26 Dragon Wagon. Rich Sullivan of R&J Enterprises had a sample on hand for everyone to ogle (we tried several times to steal it, but Rich was too fast for us). Also on hand was their Sherman interior, which was complete with radio, turret, sponsons, turret basket and gun breech. Just cool, cool, cool, cool.

Not long after their debut, the company subdivided due to differences among the partners (or whatever). The Tank Workshop was the result of this and the agreement was that TTW would handle the overseas market and Panzer Concepts would handle the domestic one.

For reasons as of yet not fully explained, Panzer Concepts went the way of the dodo this summer.

Fortunately for all of us, TTW was always patiently plugging away out there in Arizona and according to their prior arrangement they continued to produce all the same items and even made improvements to many of them. TTW products could always be found here and there, but their availability was never very widespread.

What this situation has created is one of the best kept secrets in the modeling world. TTW still produces all the fantastic items that caused such a stir when they were new. The line includes the original **M26 Dragon Wagon**, the **M15 Trailer** as a separate kit, the **Eisenbahn Tiger I rail car**, the heavy tank loading ramp, a **Panther rail car**, several interior sets and a whole slew of conversion parts for the Sherman.

We have been in contact with Larry Provo of The Tank Workshop and he gave us a glimpse of what is to come from this prolific bunch. Here are a few notes.

legendary Sturmgeschutz F. This 1/9th scale monster was 12 years in the making and is complete down to the last screw and bolt. Well deserved, we must say.

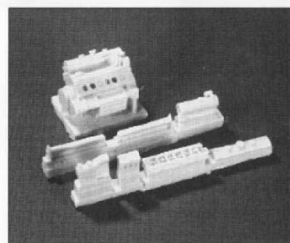
As always, if you have questions about any Tamiya product, you can contact their model hotline at 1-800-

The **M26 Dragon Wagon** has been improved quite a bit with many of the complex sub-assemblies rendered in complete parts. We are currently evaluating this kit and we can enthusiastically recommend its new incarnation. The new parts greatly ease the construction of this wonderfully complex model. It is available in both **armored cab** and **soft cab** versions.

The **M15 trailer** is now available too. This is all robustly cast in resin with some white metal detail parts. The trailer will sell for \$150.00 and the tractor and trailer combo will sell for \$330.00. Not really that bad when you consider the price of some of the other "super kits" on the market today. A future item will be the **M15A1 trailer** with the over-the-wheel ramps.

The Tank Workshop is about to give birth to a new and improved version of their older **Sherman interior**. It will be customized for the Tamiya kit and will be a fender to fender set. By that we mean, radial engine, engine compartment, crew compartment, etc. The Sherman radial engine and compartment will be sold separately to start with.

They're also doing a **Panzer IV wall-to-wall interior** for the Tamiya Panzer IV J. This, again, will be complete with absolutely everything inside represented, such as tranny, brakes, engine, fans, coolers, radios, etc. The engine will be available as a separate item and



as such it's depicted with one cylinder head yanked. Piston head and rocker arms are visible. Oh Boy!!!

The interior sets will be in the seventy dollar range, but the stand alone Panzer IV

engine will retail for a scant twelve bucks.

In the very near future we'll see an **Armored Bulldozer**. This will be the standard D9 version seen in WWII, Korea and Vietnam. It won't be advertised as the "D9" due to the fact that this is still a copyrighted product name of the Caterpillar Corporation. Look for this very soon.

The Tank Workshop is bringing back a item or two from Japan as well. A really spiffy little white metal **Japanese Type 94 tankette** is available and will be sold under the "Ordnance Models" label. A highly intriguing little kit. We do mean little. This is the tank in the famous photo depicting one strapped to the deck of a Sherman. The kit will end up being regarded as a highly specialized product as it will sell for about seventy bucks, but it will be tough to resist if you're a fan of the weird stuff (and we know you're out there).

If you or your retail man want more information contact: The Tank Workshop at 6102 West Solano Drive South, Glendale, AZ 85301. (602) 934-3687.

Vorlinden

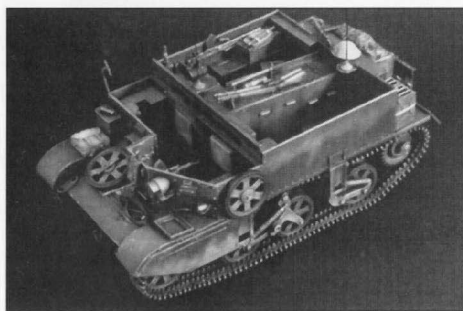
Our usual skim off the top...

Dress up those interiors with 1049, **Tiger I Transmission**. This is the tranny and trans axles in resin for \$13.95. From cat to Maus, there is a **Maus Engine and Transmission Compartment** out now. This is number 1053 and it will retail for \$24.95.

Since trannys are their mission, a **Panzer IV Transmission** and a **Panther Transmission** are slated for October release and both will retail for \$13.95 each. Numbers 1059 and 1063.

There's some fairly exciting stuff in the "Big Scale" line of 1/15th scale goodies. A big ol' **Sturmtiger** (1021) is added to the line, a logical successor to the earlier Tiger. This behemoth will set you back \$499.95, but it's pretty spectacular. Order this one while your wife's in the shower! Also in the Tiger theme is an **engine and compartment for either the Sturmtiger or the Tiger**. This is item 1019 and it retails for \$99.95.

One really neat item is the 120mm **Bren Gun Carrier**. This kit packs lots of interior detail and would pay off big with figures and other gear placed



inside. Those big diorama possibilities continue to grow and grow! The Bren retails for \$249.95 and is item #1042. Available now.

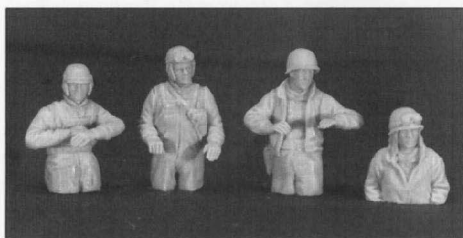
To cook up a snack you'll need the 120mm **German Field Kitchen**. This number 1065 and will be an October item. \$59.95 retail.

For the full story, contact VLS at Lone Star Industrial Park, 811 Lone Star Drive, O'Fallon, MO 63366. (314) 281-5700.

Warriors

The majority of the new Warrior products made it in to our Mini-Men section thanks to their very diligent efforts to keep us apprised of their line.

To that end we added the following just before



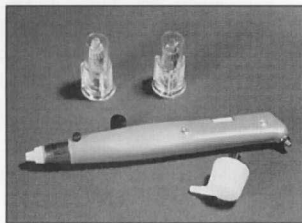
going to press: **35036, U.S. Tank Crew (Winter Dress)**; **35026, Waffen SS Pair #2** and **35038, Waffen SS Tanker w/map**.

These guys don't let up—expect more momentarily. See page 47 for more on this exciting new company.



Roadtest

We continue to "roadtest" the **Testor Model Master Airbrush**. So far we have enjoyed the performance of this little brush. Its immediate advantage over traditional brushes is the replacement of the long needle assembly with different tips for the various spray pattern widths. Each tip contains a small retractable needle. This significantly aids in the cleaning of the brush and also allows the user to be a little less concerned about



a fragile needle tip. Each interchangeable tip has four small posts that protect its needle when the tip is installed. When the tip is removed, the needle retracts into the body of the tip. This works well for cleaning too, as you don't have to worry about damaging the end.

There were four tips provided with our set, ranging from very fine to a wide spray pattern. All of them performed well and we were quite impressed with the fidelity of the finest tip. It atomized the paint very finely. This would make it perfect for creating dusty and "cloudy" effects.

Several different size color cups are available and all of these are molded in white plastic. This makes them a bit easier to clean. The cups all had round, convex bottoms, which made it impossible for them to be set down while not attached to the brush. The feed tube for each is located at the bottom of the cup, so even if they could be set down, all the paint would drain out.

MMIR Tip of the Quarter: There is a solution to this. The Model Master brush is also sold to artists as the Aztec 3000. It's probably that the Aztec is sold as the Model Master—or whatever. If you can find the brush at your favorite art supply store, there is a range of accessory products that also work perfectly with the Model Master brush.

For example, the color cups. A full set of traditional style cups is available with three different size cups. These all have flat bottoms, so they can be set down on a counter-top. Each also has a removable insert that greatly aids in cleaning the cup. The set is under ten dollars and it is stock number 9303.

There is a standard 1oz. bottle with a syphon cap too, useful for big jobs. This sells for around six bucks and is stock number 9314.

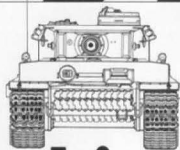
These accessories can be found at any well stocked art store that carries the Aztec line of products.

All in all our opinion of this tool is high. We'll report any significant problems with the brush throughout the remainder of the year along with any more tips we figure out. A complete report will be in V2 #4.

Tankety-Tank

Tankety-Tank

Tankety-Tank!



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RC35503

Sexton gun crew, Summer 1944

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Double Takes

The Pershing Revisited

Following fairly close on the heels of the M26A1 comes the T26E3 and the M46. These are the younger and older brothers of the M26A1 and pretty much complete the basic Pershing family quite nicely.

The first release was the T26E3. If you have read our original diatribe on the M26A1 you'll know that the T26E3 was the prototype of the Pershing and the very first in the line of "Patton" type tanks. The design of American armor remained in this basic configuration for over thirty five years.

Labeling this the T26E3 might have been a bit of a boo-boo, as many out there may not have been aware of the Pershing's original moniker. T26E3's were sent to Europe in late 1944, arriving at the newly opened port of Antwerp in early January of 1945. These tanks were part of the Zebra Mission, which was the effort by the U.S. Army to bring as many of the new weapons systems then in development into combat situations before the end of the war. Way back then, the Pershing was officially known as: Heavy Tank, T26E3. In March of 1945 it was re-designated, M26 Medium Tank, Pershing.

So, it really is the Pershing, not some wacky Soviet tankski.

DML has yet another winner here. The main (or maybe all) differences between this kit and it's predecessor are the muzzle brake (bigger here), the front hull (more shapely and sexy) and the tracks, which are the T-66 type instead of the later T-80 steel cleat track.

As you'd expect, construction is the same as the M26A1 in almost all respects. There are a few things worth mentioning.

The new tracks are much easier to build than the earlier T-80 deals. DML went and gave us separate track horns there, and although the finished product was ultra cool, it was also ultra time consuming. No such thing on the T26, the T-66 tracks are rendered complete with their hollow horns molded right on. Spiff-o-rama!

There are 4 sprues of 44 individual links per sprue, a total of 176 links. The tracks are very nicely molded. Some slight clean up is required, but nothing really outrageous. There are the same pesky knock out marks on the inside surfaces of each link that seem to be common on this type of part.

The suspension assembled well and the detail is excellent. You get that same wonderful hull texture throughout both hull and turret. There are many nice turret details in the form of small detail stuff



like the machine gun retainer, track link tools, and other gear. Assembly of the turret halves requires a little care in order to achieve proper alignment, but generally, that's no big deal. One noticeable thing that's missing are the mantlet casting numbers, which are generally very prominent. These can be addressed without too much difficulty, as we pointed out in the M26A1 article (in that case, scraped off the DML Easy Eight). The main gun tube and muzzle brake are nicely done as well. Neat screw head detail on the mantlet too. Also, the periscope guards are very nice as far as a kit part goes, but you really have to be careful when removing them from their sprues.

One of the big omissions in the A1 was the side skirts. They weren't seen on all tanks, but it's nice to now have the option. If you do use the side skirts, exercise care in removing them from the sprue, they're also a bit on the delicate side. For some reason, the skirts are molded in black plastic and they're packed in a separate little bag (OK so I notice weird stuff).

One detail note: the instructions still have you add the forward fender supports, C32 and C33. These were not used on early M26s. Another item that the instructions do mention is the removal of the locating points for the gun travel lock just aft of the main fuel filler cap. On the M26 the lock was located on the main exhaust.

A significantly better developed decal sheet is provided, although it only provides one marking option. This is a tank from B Company of the 19th tank battalion, 9th armored division. Plenty of white stars appear on the sheet along with a complete set of tactical markings. One nice addition is the loading and maintenance markings for the side skirts. These are a bit of a hump to adhere due to the large size of the carrier film, but they greatly enhance the appearance of the finished model.

This kit built very well—and quickly. I had the whole thing together in no time at all, maybe 3 nights. Some little detail items will vastly improve the model overall, such as adding fender supports with some thinner rod material, and lenses to the spot and headlights. Also, a tow cable would help out quite a bit. Generally, excellent and a great quick build or a super detailing project.

—Larry Lawler

A Patton of a Different Color: The M46

Rounding out the Patton triple crown is the M46. The M46 is very similar the M26 series. As a matter of fact it is the M26 series. More to the point, the M46 was derived directly from available M26's.

At the end of WWII, Congress wasn't in the mood to fund new conventional weapons, so it was decided that the 2,000 available Pershings would be improved with all of the current design concepts.

The biggest weakness of the Pershing was its engine. Uncle Blackjack was powered by the Ford G8 engine—the same power plant used in the Sherman. However, the Pershing weighed in at ten tons more than the Sherman and therefore never quite had the automotive performance envisioned by its designers.

Enter the Continental Motors air-cooled V12 engine. This little sweetheart smacked out 500 big hp's. It mounted in the Pershing sideways and this gave it the name "cross drive."

This significantly altered the back deck of the M26. The engine deck was completely redesigned with an aggressive series of armored doors and vents. Two large exhaust pipes emanated from the center deck and ran into two large mufflers on the fenders.

Access ports were added to the rear hull and an infantry telephone was integrated into the back hull wall.

Another upgrade was the addition of a small track tensioning idler wheel between the last road wheel and the drive sprocket. The idler was identical to the others on the tank. This idler was attached to a torsion bar and it helped maintain track tension thus eliminating the tendency of the Pershing to throw its track in turns.

Combined with the T54 90mm gun first seen in the M26A1, the whole package was christened T40 for its testing phase and then standardized as M46. The M46 was nicknamed Patton. 800 Pershings were converted in 1949 and a further 1,215 were slated for conversion in 1950.

DML strikes again! Just like the M26, DML went and nailed the M46. All the unique features of the Patton have been superbly rendered in this gorgeous little kit. Just wait until you see this engine deck. All the many details are very cleanly and crisply rendered.

The kit, like the real thing, is essentially a

Another Guy Named Joe, The DML JSU-152

The latest in DML's Stalin series is the "Chinese" JSU-152 assault gun. The JSU is also part of the new Korean War series, although the Chinese only used them for border defense and propaganda, rather than aggressive combat during the war.

The kit consists of 428 parts in gray and steel colored plastic. It's identical to last year's JSU-122 except for the 152mm gun. World War II modelers take note: the vehicle is not exclusively Chinese. The kit decals do include a dull set of Chinese numbers, but also supply markings for a Polish vehicle and three cool and colorful Russian vehicles of the type seen around Berlin in 1945.

Construction was simple and very straightforward. The only major modifications were replacing the engine deck screens with brass ones from The Show Modelling (#055). This sheet is intended for the JS tanks, but all the parts are useful on the assault guns. In addition to the screens there are a number of smaller parts, like fender brackets, hex bolts and fuel can hardware. One other interesting addition is the large screen for the main engine grille. This was a common sight on post-war JSU's often seen in the Middle East. Before moving on I blanked off the fenders underneath the fighting compartment with plastic card.

Extreme care must be taken when assembling the gun barrel. The perforated muzzle is very delicate. I welded mine together with Tenax 7R liquid cement. I'd suggest waiting at least 24 hours before sanding and shaping the muzzle. I didn't and it took a little putty to fix the resulting goof.

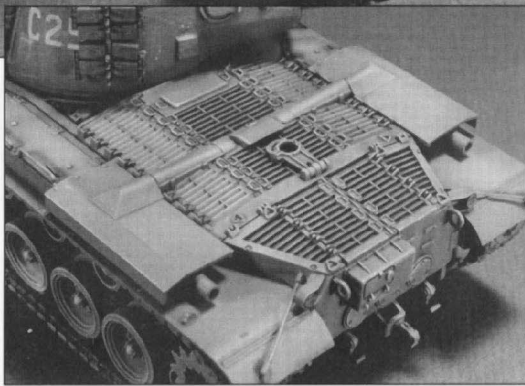
As on the JSU-122, the instructions still show the installation of a gun travel lock. The box top model even shows one installed! There is no way in the realm of physics that this vehicle could hope to use a travel lock back there. Just say no.

I painted my model overall black, then applied Model Master SAC Bomber green. I've started using this shade on Soviet vehicles because it looks faded and dusty right from the bottle. The tracks were sprayed Humbrol track color and drybrushed with silver. The whole model was then glossed, decaled, drybrushed with pale green, flat-coated and dusted with pastels.

Aside from the molded-on engine deck grilles and misleading travel lock instructions, the DML JSU-152 is a great kit. I especially liked the colorful decal options (for a tank anyway). Last year, DML hinted at releasing a JSU-122S with a SU-85/SU-100 style mantlet. I'm also looking forward to the JS-1. Keep 'em rolling and I'll keep bankrolling.

—Pat Stansell

—Eric Knight



Infantry Division. What you get is all the most difficult elements to paint, which is a pleasant effort on DML's part. Using these would require some careful underpainting and planning. The bulk of the paint job is composed of large swaths of orange paint. Not exactly subtle, but definitely different.

If you can get your hands on the Italeri M47, it creates some interesting possibilities. The Italeri kit contains the T88 rubber chevron tracks and these were quite common on Korean war M46's. I used them and it saved me a ton of time. If you don't like the link-to-link stuff, this is a useful option.

There's gold in that there engine too. The Italeri kit contains a full engine and if you carefully hack up the DML kit, you can display it. The Italeri kit's deck panels all fold away, but they're not as crisply molded as the DML ones.

This is a great kit. Admittedly I'm a big fan of this series, but I think anyone will like it. It almost completes the Patton series. We now have the M26, M26A1, M46, M47, M48A2, M48A3, M48A5 and the M60. All we're missing is the M48A1 flat-deck Patton. The "Elvis tank." Is it here yet?



conversion of the earlier M26A1. The lower hull is identical to the earlier kit as is most of the suspension and the tracks. Extra parts are provided for the extra idler and to modify the back of the hull.

The kit is a smooth build. No real significant problems were encountered. Like the earlier kit, the rear hull can be tricky to get aligned. I used a liquid glue and this gave me plenty of time to futz with it.

The front end of the hull is of the M26A1 type and you don't have to do this particular version. There were other variants of the front hull and photos show many M46's based on the earlier, rounded front end of the M26 (rounded MG bulge and rounded ventilator housing). I carefully compared the M46 hull with that of the T26E3 and I think that just slicing the hull just behind the turret ring and swapping them would be a cinch.

The turret is almost a copy of the M26A1 kit. The only difference is the addition of a forward mount for the .50 cal MG. This was an improvement over the earlier rear mount that afforded the operator some measure of protection. The older mount was retained and is present.

There's a bonus part in the Patton in the form of a 18-inch GE searchlight. These were common in the latter half of the Korean war. DML's version is a simple but nice multi-part assembly. A separate mantlet is provided for the light and it's notched to receive the finished part.

I painted my Patton an overall medium green, indicative of Marine Pattons in Korea. I opted for sort of a plain-jane type of scheme representing a tank of the 1st Marine Division.

In addition to the markings for the 1st Marine a partial set of markings is provided for one of the colorfully marked "Tiger" tanks of the 24th



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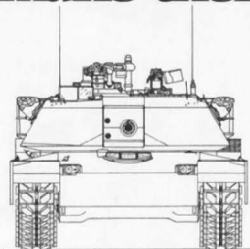
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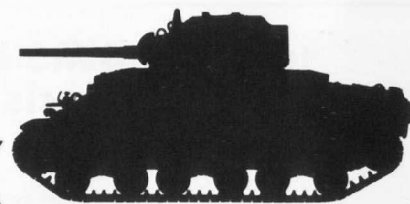
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The Sherman Tank: A Fragmented Look



PART 2a: M3 GLACIS ARMOR

by Pete Harlem

In the last issue I diagrammed the final drive and transmission housing parts of the Sherman tank series. In Part 2 I've drawn the glacis armor. Glacis means "a gentle slope," and it is the portion of the hull most likely to be hit by enemy anti-tank fire in combat engagements. For that reason the glacis armor on any tank series shows the evolution in thought of tank designers as they responded to increasingly more sophisticated anti-tank threats. In this part, we look at the glacis armor of the Sherman's older brother, the M3 series. This includes the Lee, Grant, and Ram tanks. Next time we will do the same treatment for the M4 proper.

The M3 medium tank was a major upgrade of the M2 design of the mid-1930s but it was largely built the same way. It retained a flat rolled steel plate structure bolted together to produce an angular set of plates in front with a large cast 75mm gun turret mounted over the right track. Initial production batches arrived in North Africa in time for combat in 1941. The original design was produced in several factories through 1942. A number of changes were made during the early 1940s production runs to improve the tank in small ways and a completely cast hull version with rounded corners and no rivets was also produced. In Canada, M3 lower hulls and running gear were attached to a low silhouette, turreted cast hull to produce the Ram series (called M4A5 by the U.S. Army) which saw little combat, but was the inspiration for the M4A1 in many respects. Described below in this article, the standard M3 hull plates are referred to as Type 1, the cast hull Lee tanks are called Type 2, and the Ram based cast hull is Type 3. Note that the type designations used here are not official terms.

Type 1 Glacis Plates

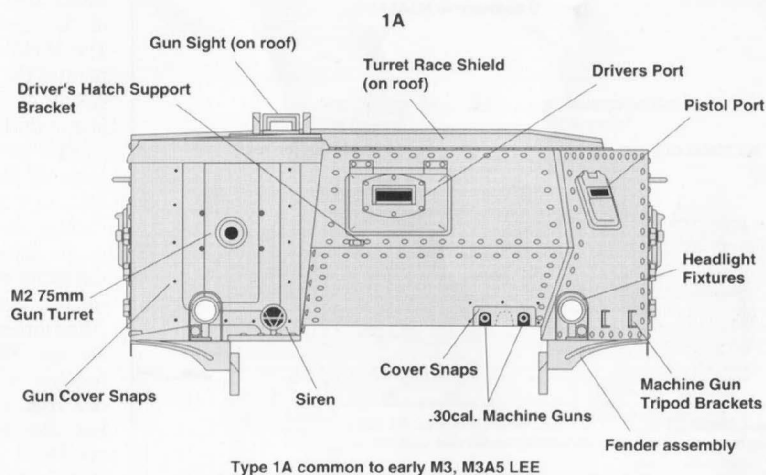
Figures 1a and 1b show the parts of the Type 1 glacis. This armor is made up of the cast gun turret, an upper middle plate, lower middle plate, left side plate, and a small triangular plate (not visible in the drawings) that covers the side of the driver's compartment in front of the gun turret. The 75mm gun turret casting had a nominal thickness of 2 inches; the upper middle plate was 2 inches thick and sloped at 30 degrees, and the lower middle plate was 1.5 inches thick and angled at 53 degrees. The left side plate was also 1.5 inches thick, and had an angle of 10 degrees. The filler plates were 1.5 inches thick. The plates were held together with rivets, with two types used. The most common was the rounded top variety familiar to modelers, but some were slotted screws, which become obvious only when examined closely.

Details on the gun turret were few, the only add-on being a set of snaps used to hold a canvas mantlet cover. These can be seen on some tanks but not all, so add them to your models only if you feel the need. An armored gunsight lens fixture was mounted on the roof of the turret and it rotates with the gun. Most M3s had two .30cal machine guns mounted in the lower middle plate. The guns barely

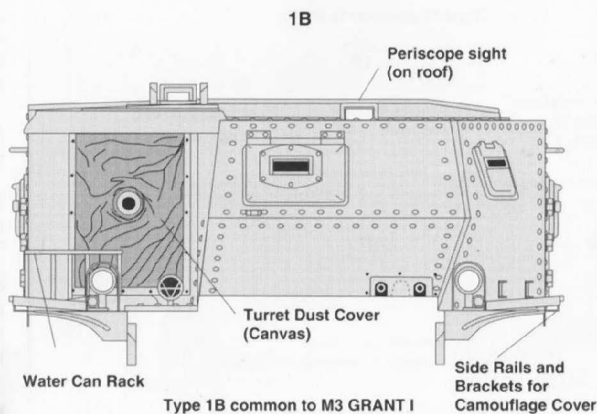
protruded through a small rectangular casting that was welded into a cutout in the lower left corner of the plate. Most M3s had several cover snaps installed around the .30cal casting, but again not all tanks had them, so adding them to your models is optional.

The upper middle plate had the opening and hatch used by the driver. The hatch had a vision port in it and was supported in the open position by a rod that the driver attached to a support bracket below the hatch opening. There was a splash guard

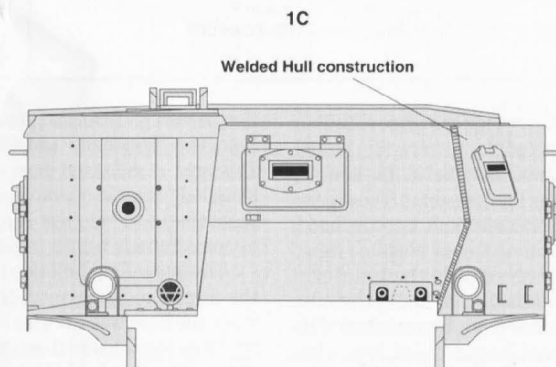
Type 1 M3 Rolled Steel Glacis Plates



Type 1A common to early M3, M3A5 LEE



Type 1B common to M3 GRANT I



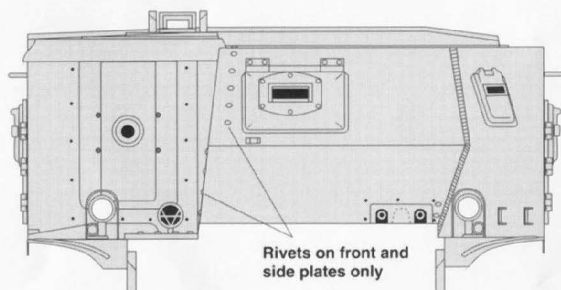
Type 1C common to M3A2 LEE

1/35th scale

FIGURE 1a

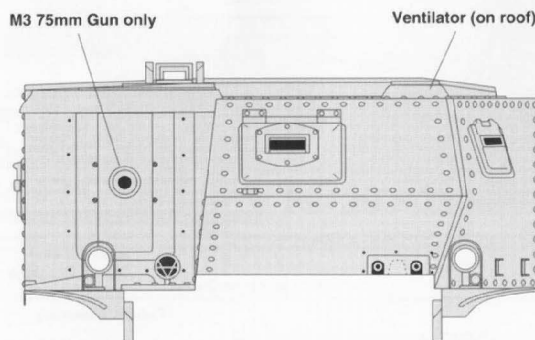
Type 1 M3 Rolled Steel Glacis Plates

1D



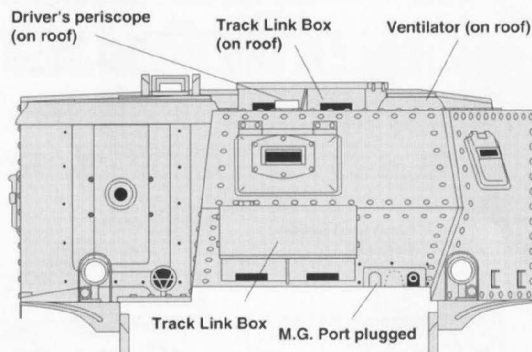
Type 1D common to M3A3 LEE

1E



Type 1E common to M3A4

1F



Type 1F common to late production M3, M3A5 LEE

Type 2 M3A1 Glacis Armor

Figure 2 shows the details of the cast version of the M3 Lee, the M3A1. The casting was an attempt to improve the armor by eliminating all the plate joins, the rivets, and the various shot traps of the standard M3. There were 300 M3A1 tanks produced by the American Locomotive Company in 1942 and some saw combat. Details on its service are sketchy, so it remains one of the more ignored, yet interesting, members of the Sherman clan. The M3A1 hull incorporated the gun mount casting of the previous M3s in the hull casting so that portion is the same as the standard tank. All normal M3 fittings were located in the same place on the M3A1 with the .30 cal. bow machine guns fitted directly into the casting. The driver's hatch was the same one used on the M3, but the hull hinge mounts differed slightly from the welded hull tanks. An antenna mount was provided on the left front side, but otherwise this was little more than a lumpy looking M3, sans rivets.

Type 3 M4A5 Ram Glacis Armor

Figure 3 shows the cast Ram hull used on the M3 (Canadian), all built in the Montreal Locomotive Works. More than 2,000 were produced as Ram I and Ram II tanks (the main gun being bigger in the Ram II, and called M4A5 by the U.S. Army). The only ver-

sion to see significant action was a conversion of the Ram, the "Command and Observation Post Tank." This was a defanged Ram tank with equipment installed for radio operators and a unit commander seated in the turret area. The C/OP version was used by some Canadian units in Europe after D-Day.

The lower Ram hull was the same as the M3, but the upper hull was very different from the Lee. Since the Ram was a normal turreted tank, the new hull was much lower than the American version. It did use the standard M3 driver's hatch, located on the right hull side of center, but the bow machine gun was a single .30 cal mounted in a small turret

located on the left side of the bow. This turret was similar to the commander's turret on top of the 37mm M3 turret, but did not have vision ports on the sides. Later Ram hulls were heavily modified to eliminate a number of problems and the bow turret was dropped in favor of the standard M4 machine gun mount ("ball" type).

Rams had different fenders too, these doubling as stowage boxes. Headlights were installed on the final drive housing, so holes in the front casting were few. There is a creatively designed dimple in the right front of the casting that is caused by the notch in the transmission housing on the M3. This was done to maximize interchange between M3 and Ram drive units, but made an interesting shot trap in the Ram.

Detail Notes

The other drawings show the changes made to sub-versions of the three hull types. A few notes on each are in order:

1A - This is the basic M3 and is the hull in both Lee and Grant kits from Tamiya. All parts shown are common to all early production M3s, regardless of manufacturer. The only note I have pertains to the way to tell M3s made at the Pullman Car Company from other M3s and is not specific to the glacis story, and not illustrated here. The pilot models of the M3, all made at the Rock Island (Illinois) Arsenal do not have the upper three rivets in the vertical row used to attach the turret casting to the right side vertical plate. Only M3s produced by Pullman followed the prototype pattern and these tanks (including many Grants) are missing the three rivets. We add this tidbit here only for the sake of completeness and hopefully we can revisit it in a later piece.

1B - This drawing shows the standard fittings found on most Grant tanks used by the British Commonwealth. A number of items are peculiar to the British tanks. For example, most Grants in the desert war in North Africa had canvas dust covers added to the mantlet of the 75mm gun. The cover was snapped on and fastened around the gun barrel.

The Brits also made extensive use of canvas camouflage covers on their M3s to make them look like trucks ("lorries"). To accomplish this, a rail was attached to both sides of the tank with the front ends welded to the front fenders. Small brackets were added to the rail that held tubes that supported the canvas lorry cover. Other add-ons included a metal frame water can rack welded to the right fender, behind the right headlight assembly. The racks were pretty much standard issue items with little variation seen, and these changes were done in British shops and are not considered factory items. The last modification, this one added to most Grant hulls at the factory, was a rotating roof mounted periscope sight for the driver. This has to be added to the old Tamiya kit.

1C - The M3A2 Lee was the first hull to feature welded plate joints instead of rivets. It is identical to the M3 glacis except for the lack of rivets. Only a small number of tanks were made, and it is considered a prototype at best. We show it here for completeness.

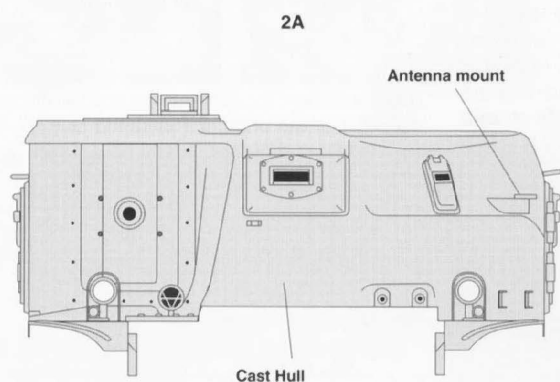
1D - This is the M3A3 hull front and it too is all welded, but unlike the M3A2, it has a few rivets used to strengthen the construction. All other details are as in the M3 and there were 322 tanks produced in 1942 in this pattern. Rivets are found in the upper middle plate and on the small triangular right side plate facing the 75mm gun tube. Combat use of this tank version is unknown.

1E - The M3A4 was the long hull version with the

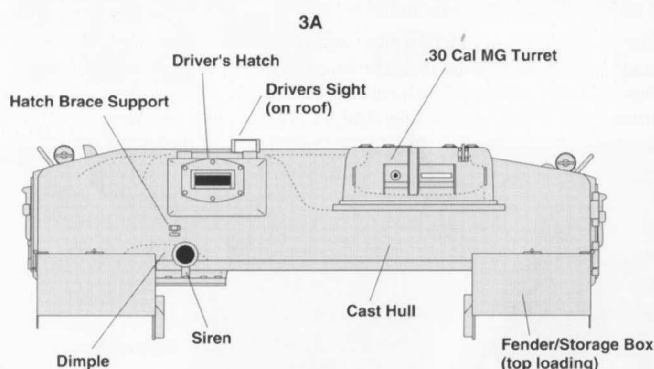
welded around the hatch opening to prevent bullets from catching the edges of the hatch when closed. A standard pistol port was installed in like manner in the upper front of the left side plate. These ports actually had a small periscope built into the hatch cover so they are not direct vision ports as stated elsewhere. Like the driver's hatch, the pistol port opened upward and could be braced to stay that way. On the lower end of the side plate, two brackets were bolted on that held a machine gun tripod, used when dismounting one of the vehicle weapons. These brackets are common to almost all M3s.

FIGURE 1b

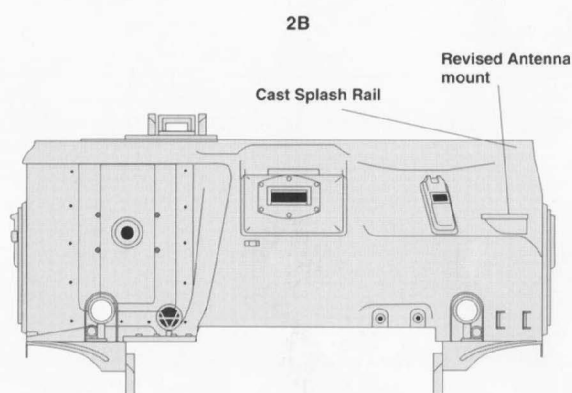
Type 2 & 3 M3A1 and M3A5 Cast Steel Glacis Plate Armor



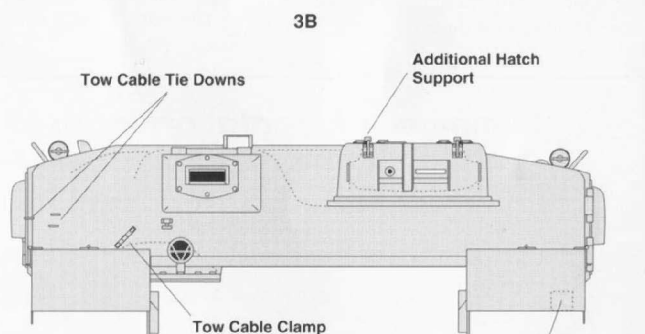
Type 2A Cast hull M3A1



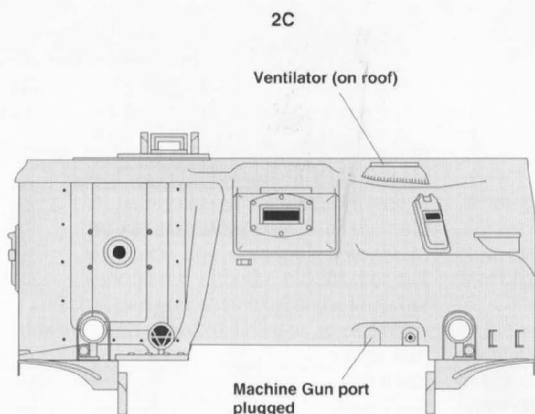
Type 3A Cast hull M3 (Canadian) "Ram I"



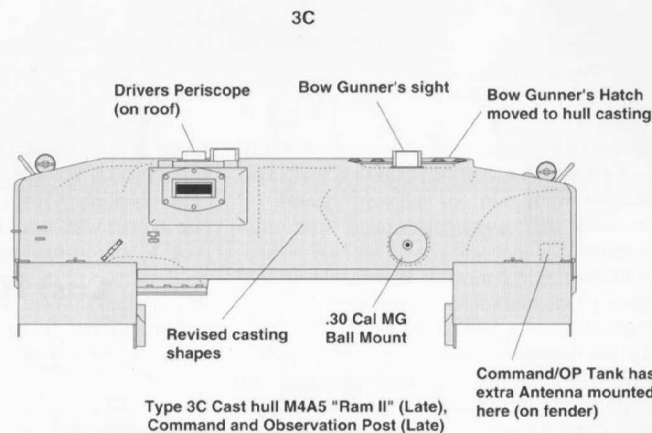
Type 2B Cast hull M3A1 mid-production features



Type 3B Cast hull M4A5 "Ram II," Command and Observation Post
Command/OP Tank has extra Antenna mounted here (on fender)



Type 2C Cast hull M3A1 late production features



Type 3C Cast hull M4A5 "Ram II" (Late), Command and Observation Post (Late)
Command/OP Tank has extra Antenna mounted here (on fender)

FIGURE 2

Chrysler multi-bank engine. It had a standard M3 glacis arrangement with riveted construction. Being a late version, all had the roof ventilator above the bow gunner position, and all had the long barreled 75mm gun M3. Chrysler made 109 M3A4s in the summer of 1942 before switching over to the M4A4 and their combat service is also unknown. With the advent of several M4A4 based kits, a conversion of the Tamiya M3 becomes a possibility.

1F - The M3A5 was similar to the M3A2 Lee but with riveted construction. Produced late in the history of the M3, this version always featured late

Lee details. The drawing here is good for both the M3A5 and all late forms of the standard M3. Two track link (or grouser) storage boxes are installed on the front, one on the roof, and another on the lower middle glacis plate. Made of thin metal, these were issued with covers initially, but late vehicles appear to have a version that used canvas straps to hold the contents in the box. Our drawing shows the early boxes.

The roof top ventilator was standard on M3A5s and added to rebuilt M3s whenever possible. Rebuilt tanks and the A5 also had one of the bow machine gun ports plugged with steel. Another

feature, common only to a few M3 or M3A5's produced late, was a roof top driver's periscope located in front of the driver's head. The only good picture of this feature is on page 64 of Hunnicutt's book on the Sherman. I'd guess fewer than 100 M3s of any type had this periscope added. (While I'm on this photo source, the page 64 shot is also the only photo of a revised driver's hatch that was designed for the M3 series but not put into production. It opens sideways instead of up and can be clearly seen on the test tank shown in the photo.)

2A - The first M3A1 hull made use of many M3 parts

and was a lumpy looking cousin of the original tank. The early version of the antenna mount is shown in this drawing. You won't see the antenna mount used on most tanks, it being there for the second radio set common to command vehicles.

2B - During the M3A1 production run two changes were made to the front of the hull. The hull casting was revised to add a bullet splash rail or lip to the area around the 37mm turret race. And the front antenna mount was changed slightly to strengthen it.

2C - Like most M3s, late production run M3A1s were upgraded with a roof top ventilator. The inboard .30 cal bow gun was also removed and the outlet port plugged up.

3A - This drawing shows the layout common to the Ram I and to early production Ram IIs. The Ram II was a up gunned Ram I in early form. Note the roof top driver's sight similar to the one on Grant tanks. The circular objects on top of the hull are the fire extinguishers mounted on the rear of the hull. For the modeler, Verlinden makes a Ram Tank kit, but I was unable to find a review copy to see which version it is. I believe there was another resin kit of the Ram, but have no info on that either. Maybe one of

our readers can comment? Eh?


3B - Once the Ram was issued to Canadian units a number of additions were made to the front hull. A second hatch support was added to the bow gun turret, one not being strong enough to hold the hatch open with someone sitting on it, and several parts were added to the right side for the tow cable. The cable ends were attached to the final drive housing, a clamp next to the driver position held the strands at mid point, a strap attached to two wire brackets acted as tie downs, and a third wire bracket held the cable loop just forward of the side escape hatch. On Command an Observation Post tanks made from this hull, a second radio mount was attached to the top of the left fender box just forward of the hull armor. Note also, the hull side hatch pistol ports have been eliminated in favor of blower fans in armored covers.

3C - This shows the late features and late type hull found on some Ram based tanks. The entire casting had undergone a major refit and simplification, and the bow turret was removed in favor of a ball mount .30 cal machine gun. The hatches found on the early bow turret were retained but moved

slightly rearward on the new hull casting. Some late Rams had a second periscope attached to the roof in front of the driver, as shown.

Figure 4 is a summary of the drawings showing the changes without the parts identified. As a final note, I also tried to show the evolution of the side hatch detail on the M3 series as seen from the front. This is a subject for another day, but the drawings show either the original functional side hatches, the modification to welded shut hatches with no hinges, or the final hulls that had the hatches eliminated entirely. Early production tanks had functional hatches; rebuilt tanks had welded shut hatches, and late production tanks had no side hatches at all.

And that's still not all...

The subject of front ends was so enormous that we had to split the M3 and M4 sections. So this is now officially a five-part series (so far). Next time we look at the front of the M4. Until then, keep in mind that this stuff is not locked in concrete. Variations of the above can be found, I'm sure. Totally. 

Summary of frontal armor used on M3 tanks and their derivatives (1/48th scale)

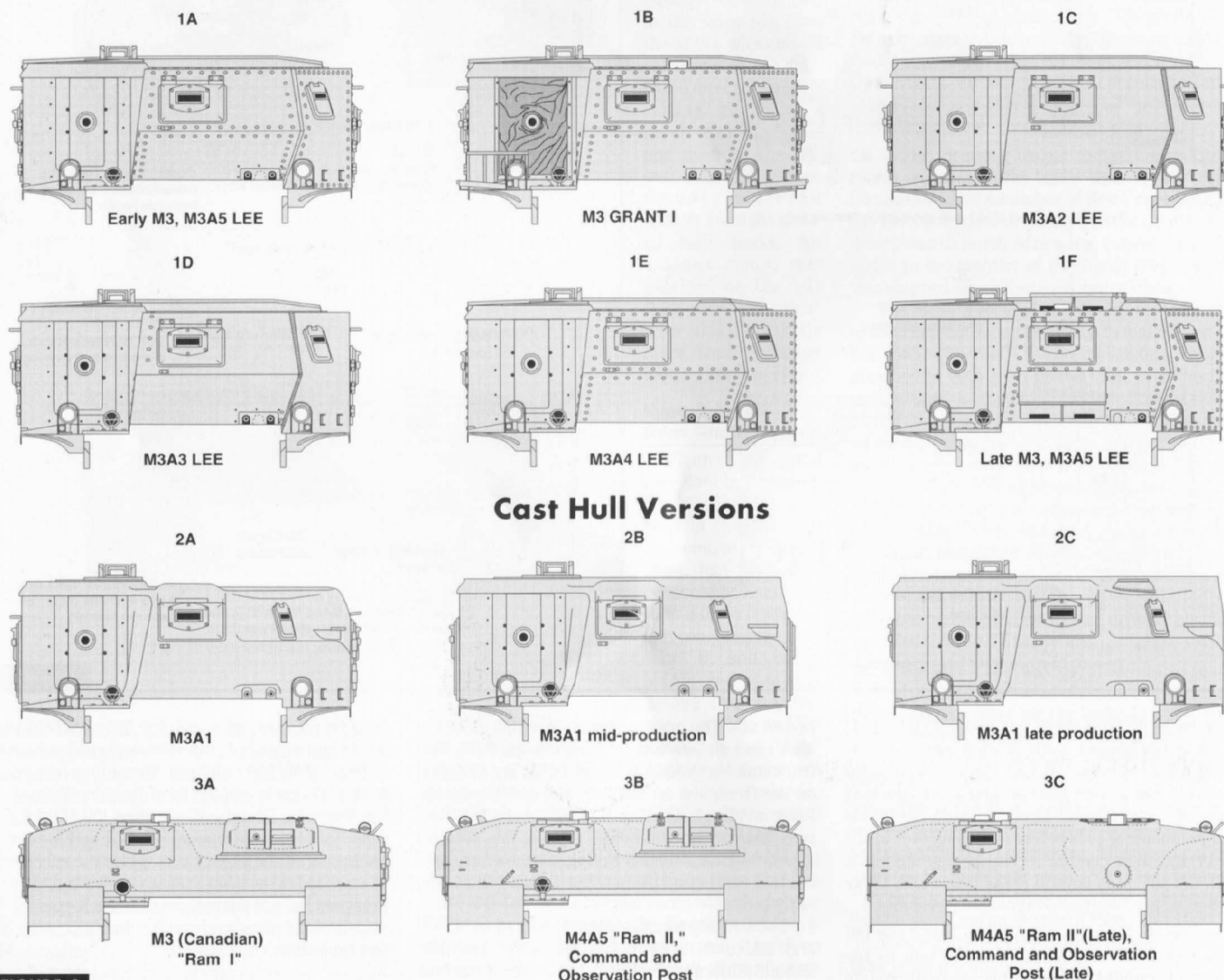


FIGURE 4

Simply M4

Tamiya updates
its classic in
OD plastic



This latest kit from Tamiya builds into the famous M4 Sherman tank. Tamiya has boldly chosen the plain M4 version instead of another rehash of their old M4A3 kit. The new tank does share some parts with the old kit, but not many and that decision obviously helps keep the price down a small measure. Titled as an early version, this kit does not represent the early hull with direct vision blocks for the driver and bow gunner; instead it has the hull common to the intermediate M4 and includes the parts needed to build a remanufactured tank as well. The beauty of this choice is that the parts can be kit-bashed into other tanks and many of the already existing aftermarket conversions that fit the old M4A3 still fit this kit.

William T. To a T

Four new sprue trees provide the parts for the M4, two of these being identical and containing those things you need two of. One sprue has the parts for the early (small bustle) turret and the other has the new hull parts. Two sprues from the old M4A3 are included and these have the bogies, hull bottom and many details common to both versions. A number of the old parts on these are excess but are nice to have in the spares box. Tamiya has molded a new set of wheels, the spoked type, so the

old solid wheels are extras. You get a new "three piece" nose but the old one piece is still here. The old kit's figures and extra stowage (boxes, tracks, etc.) are here even though the M4 gets new figures and new stowage items. In other words, lots of good stuff left over.

Construction begins with the hull bottom. This is the same part as on the A3 kit, but Tamiya has redone the old sprue mold to change this one part. It now is different at the front end so that either the three piece nose or the single piece will fit on it. It is best suited for the former since the shape of the final drives of the three piece do not completely fill the sides of the one piece nose. There are two different final drive plates provided which cover some of this problem, one set for the early nose, one set for the later nose which includes a growth on it that fills in the sides of the one piece. For some reason, Tamiya did not provide a part for the second gap resulting from using the later type nose. A little putty will cure that.

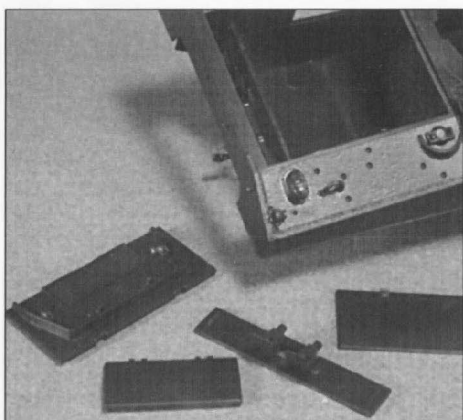
The new parts for the three piece nose are well molded, but the parts do not fit snugly, so I had to putty gaps in the final drive covers and at the bottom joint with the hull. This is really the only fit problem on the kit, and otherwise molding and construction quality is high. The molded-on casting numbers on

the new nose are very nicely rendered. After installing the nose parts, I moved on to the back end.

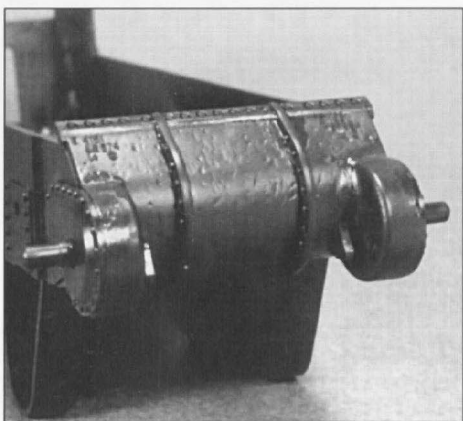
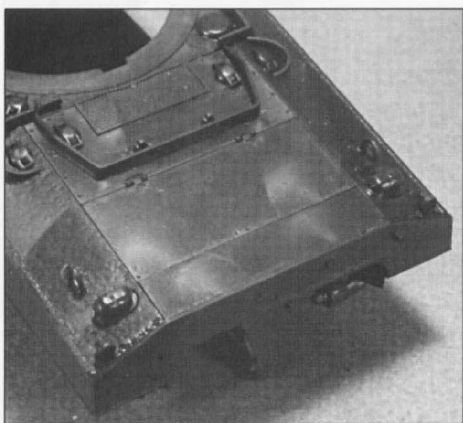
The kit provides the rear hull bulkhead, this time with separate engine access doors, which I believe is a first on any Sherman kit. Square section box air cleaners are provided which mount high on the back bulkhead. The air cleaners have separate hold down brackets for the removable covers but only two brackets are given for each box whereas the real ones had three each. The third one sits up against the fender side walls, so maybe Tamiya figured they are not visible enough to reproduce. I agreed and made no attempt to add the missing ones. I had to fiddle with the bottom of the air cleaners a little because the fit was slightly loose.

All the tank's grab handles on doors and hatches are molded ribs in typical Tamiya fashion, so I cut off each one and replaced them with wire handles. The first one encountered was on the engine access doors. You can easily slice the kit one off if you do it before mounting the doors onto the rear hull bulkhead. You'll have to do this for the various hatches later on.

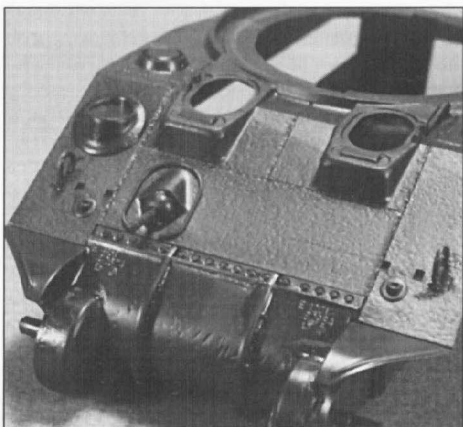
The harshest criticism of the newest Sherman is in the realm of "sins of omission." Tamiya has left some stuff off, perhaps to save plastic or engineering expense and that presents some familiar



Above and below: the back deck all torn down and then all stuck together. The fit of all the panels was sweet.



Although it's a little dark, this shot shows off the cast texture of the three-piece nose well.



Ditto here on the front hull. Maybe not 100% accurate, but it's sure nice to look at!

Sherman jobs for builder to tackle. Just like the A3 kit, this Shermie has no sponson bottoms. Instead we get a hole over each track run that makes it possible to look down through an open TC's hatch all the way to the top of the tracks. The solution we are given is to cover the upper track run with fenders but you still get to see down from above if the tank is opened up. It is too bad Tamiya didn't provide the two flat plates needed to cover the overhanging holes. Cost benefit wise, I would have traded some of the stowage or new crew figures for a complete hull. Covering these things is a bite in the butt even if you've done a bunch before. For the Sherman literati out there, put in some styrene and move on.

The revised A3 hull bottom part suffers also from having no side walls above the line of the hull sponson side. So, at the back end, we get two parts that serve as partial engine compartment walls and also as the inner side walls of the fenders. These have a couple of pin marks on the inside surface that can be seen peeking around the air cleaners.

They also have big mounting ribs that can be seen behind the tracks and which interfere slightly with any attempt to cover the hull sponson bottoms with styrene. If you want to do a tank without fenders you'll have to cut a portion off these parts, otherwise your tank will have fender remnants.

The bogies and other running gear were improved some by Tamiya but we still get the old bogie basics from the M4A3. The assembly is the same as before so Sherman addicts are on familiar ground here. Minor complaints are recorded for the way the old units assemble making for a joint seam that is hard to remove. The bolt holes on the front and bolt heads at the back that hold the trailing return roller mounts on are not present, and also missing in action are the mounting bolts for the skid plate. The latter is also a bitch to clean up and I wished for an alternative solution to these old Tamiya Sherman problems. Aftermarket to the rescue perhaps?

I also wish they had done the early bogie with the lower return roller mount which is more common on M4s of this vintage, but again we will have to wait for the aftermarket boys to catch up. The old M3 type bogie would have been a nifty choice also, but that would have made the kit better suited for a true early M4, not the one Tamiya had in mind. We do get new spoked bogie wheels in addition to the old (and detail-wise inaccurate) steel rims, so you can match wheels to many different tanks and have an extra set for the old kit bash project. We also get new early type drive sprockets which brings this kit in line with Italeri's Shermans on this point. The old sprockets are still here, so you again

have a choice to make to match the Shermie of your dreams and an extra pair for the parts box.

The tracks are the new glueable vinyl jobs, this time in T48 rubber chevron track blocks. The T48 was a very common M4 track of the mid-war period so these will be popular. No duckbills or grouse. I used Weld-On 3 liquid glue to attach the track ends and they melted together nicely. What an improvement over the old vinyl. It also seems stiffer and the joints between each track block look like you could get them to break easily if you flexed the track too much. Don't play with these things; you have been warned.

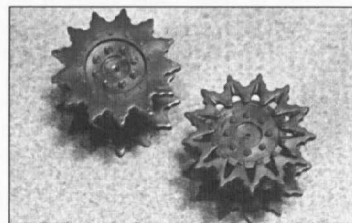
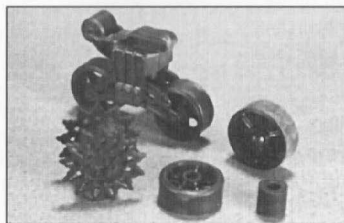
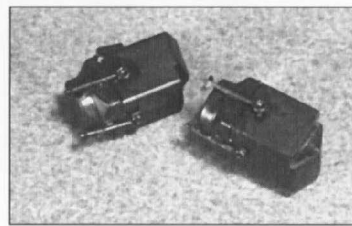
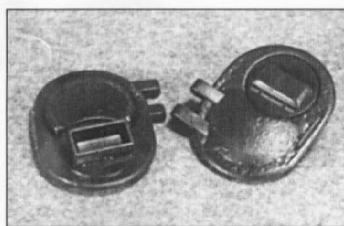
The tracks seemed too loose while test fitting, but that was solved when I glued the bogies on. The bogie mounting pins fit sloppily in the holes in the hull so I was able to glue them down in the holes to take up some of the track slack. It is important that the bogies all be square with the table top too, because that improves the track fit slightly. I painted them steel color first and then went back and painted the track blocks flat black on both sides. I liberally rusted the end connector/guide teeth since I prefer the look rusted ends give. Later on, I weathered the track blocks with real dirt which stuck to the fresh surface well and toned down the rubber to that grungy look real tracks have.

Moving on to the upper hull, this is a very nice casting. It is well proportioned and accurate and is made with the engine deck, hull rear plate, and driver's hatches all as separate pieces. The rear plate and engine access panel treatment suggests Tamiya plans on using this kit for more than one Sherman project. They could easily produce an early M4A3 from it, and by just changing the hull part, they could produce an intermediate M4A1 without too much hassle. The removable engine lids also conjure up a complete engine kit to slide down in that big hole. Interesting.

Also interesting is the surface texture. Tamiya has gone to considerable expense to make the hull plastic look like steel. All the cast surfaces look cast, but more curiously the flat steel plate sections also have a lot of fine intentional blemishes. More than real steel plate has perhaps, but it looks great and does show through a thin coat of paint. This has to be considered a bit of artful fantasy since at scale such blemishes to the flat steel are arguably not visible, but it does please the eye.

The welded plates that make up the complicated glacis are all detailed here, but I have a problem with the weld beads. Instead of raised beads Tamiya has done the best weld grooves I've ever seen. They are petite and masterfully molded, but are just not realistic. They are drop dead gorgeous and not being a purist, I left the mold seams alone

Here's four shots of the various detail bits. Clockwise from top left: the inside and outside of the front hull hatches; the aircleaners that attach beneath the rear overhang; the different suspension components, the roadwheels and the sprocket are new; finally, a comparison between the old (above) and the new sprockets.



and let Tamiya's engineers' artistry fool your eyes. I moved on wondering if this trenching is somehow related to the fad in airplane modeling of overscale grooved panel lines. I hope not as I would hate to think the airplane crowd has influence over what is "accurate" in an armor kit.

There is nothing much to see down inside the hull, so I chose to build a closed up tank for now. I used white glue to shut the hatches so that I could change my mind later on and add figures. On top, before adding much other detail, I drilled small holes for the fuel filler lock rods Tamiya left off an otherwise fine hull mold. I made the missing lock rods with copper wire.

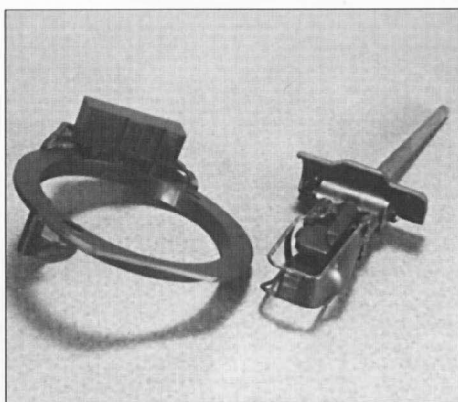
The engine deck parts are nicely done with the cooling screen below the armored lid being detailed well. This feature was peculiar to radial engine Shermans. They did this differently than previous kits by Italeri and others, so I'm curious as to which cooling screen treatment is more accurate. Putting the lid on over the screen hides the differences so not to worry, unless you want to show the armored plate hinged up. The rear engine cover plate serves a dual role as the mounting point for the engine exhausts. These are done as one part that is glued to the bottom of this plate, the exhausts hang down from it. Unfortunately, this makes the outlets on the exhaust tips point straight down which is wrong. They should curve under the rear hull armor plate (part P24) and face aft. That way the exhaust gases do not stir up dirt behind the tank.

The simple solution is to flip the exhaust part over and remount to produce the correct effect. This I did, but keep in mind another error here. On the real tank, the exhaust outlets come over the rear hull bulkhead, curve down into a small metal box with a screen in the bottom of it, pass through this screen, and then curve under the rear hull plate. Tamiya "punted" on all this stuff, so even my quickie fix does not do the back end justice if you look up under the lady's butt. I would have fixed a proper exhaust and screen assembly, but the only reference I could find showing the area under the overhang on an M4 was too poor (and too late coming) to use effectively. For what it's worth, see the drawing of the M4A1 on page 46 of George Forty's book *M4 Sherman* (Blandford Press) if you want to attempt this fix. The screen is shown there but the exhaust detail is not as precisely drawn in this old tech manual reprint. Tamiya should be chastised for this screw up, methinks.

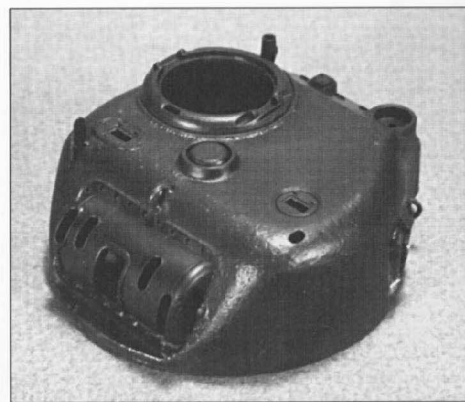
I added grab handles to the engine deck, these being the kind that come up off the surface when you pull on them. When not in use, they look like little ribs, but I made mine from copper wire and mounted them in the up position so that I could tie some stowage to them later on.

The mount frame for the periscope sights are part of the interior detail on each hatch, but Tamiya did not provide the sights themselves. You can cut the bottom halves off the two given for the turret and mount them on the hatches if you so desire. Or you can get some from the old Nichimo M4A1 kit or from the folks at VLS.

Other hull parts are all from the old M4A3 kit sprues and these include: lights, light guards, lifting eyes and pioneer tools. Some of these are fine and others are a bit old fashioned in the molding quality area. I replaced the light guards with photo etched parts from the On-the-Mark set, and I used the same company's tie down straps on all the tools. I combined the OTM siren (horn) guard with the M4A3 siren, put a new face on the latter from those choices in the OTM set, and mounted this assembly



Inner and outer views of the turret. The cast texture is dead-on accurate here and very well done. At right is the turret bustle radio and the detailed gun breech.



on the front of the glacis plate between the driver positions. Tamiya doesn't reuse the old siren part, but it is in the kit if you want to add one. Note also that on early M4's the siren mounts above the left fender skirt up against the hull plate. On remanufactured M4's it mounts as shown here on my kit. If you are going to put a lot of stowage on the front of the hull, the way Tamiya planned the kit, then the siren will get in your way. Your call.

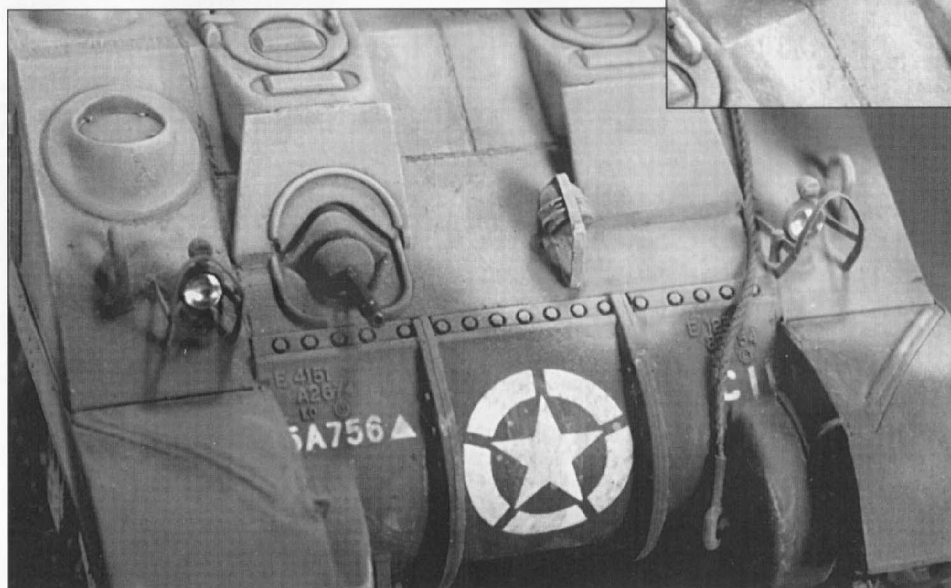
A Tow Here, An Appliqué There

I also wish to bitch at Tamiya for not giving us a tow cable for this kit. I took an old one off an Italeri kit and cut the ends off of it. I glued the ends to some nylon thread left over from an AFV-Club M88A1 kit and draped it to the hull mounts. I also scrounged a set of tow rings from the same Italeri kit to give it something to attach to on the front of the transmission housing. Hey Mr. T, why did I have to go through this hassle? Shermans are issued with tow cables, at least the ones manufactured in the U.S. all did.

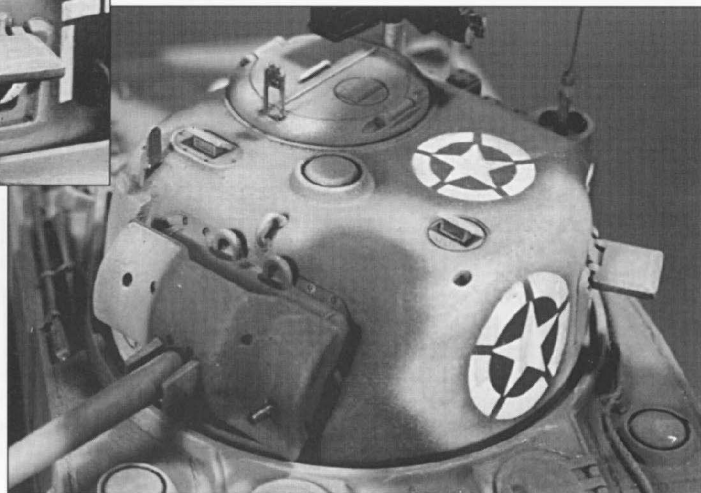
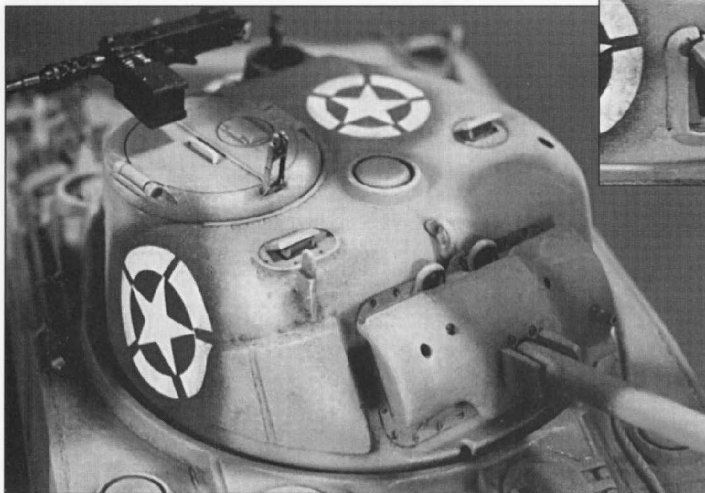
The other hull related issue for the builder to attack with reference books is the choice of using or not using the nifty appliqué armor provided. The M4 was a "dry" Sherman meaning the 75mm ammo was unprotected from interior fires and exploded easily if the hull was penetrated. To help out, the use of welded-on armor plate to beef up the sensitive spots became common as WWII progressed. The

armor was sometimes added in the field but most M4s had appliqué applied when they were remanufactured. This kit provides the standard factory upgrade plates so you should match these to the tank photos of your subject. Having said that, I set out to do the 756th Tank Battalion tank stranded outside Cassino, Italy when the Germans blew a dam and caused a flood. I found at mid-construction point that the chosen tank didn't have appliqué. I changed the kit decals some to do another tank (you know—the one that was never photographed...) from the same unit, so that the experts out there wouldn't hunt me down and shoot me.

In this kit we finally get a nice set of Sherman fenders, ones that might be adaptable back to the old M4A3 kit too. These follow the Tamiya practice of being molded in thick, strong parts with finely beveled edges that make them appear thin. I drilled out the track adjuster hole in each side skirt and tried to add photo etched parts for the front inner fender covers and support braces. This proved to be a disaster because I cut the kit inners off the hull part before I realized the OTM etched ones I had fit a one piece nose Sherman only. I rescued myself



Above: the finished and painted model. This shot shows off my M.V. lenses and the OTM light guards. Check out the crispness of all the molding detail. Once all the painting and finishing are done, the model is quite stunning. Inset: why Tamiya gets the big bucks.



Above: the finished turret, right and left. The left hand photo shows the appliqué armor. The pop-up periscopes are neat. Inset: my cut-up shell ejection port. Below: the finished suspension and sandshields. The tracks are some of the best I've ever seen in vinyl.



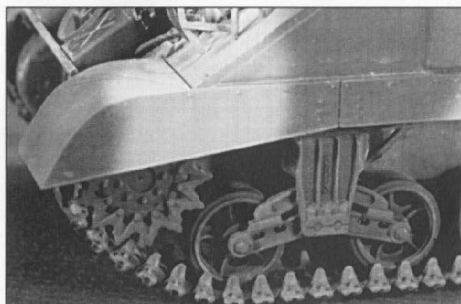
Above: the back deck. Not much to it. I did add straps to the tools and some handles to the panels. Below: the butt end. Those doors open, yet another reason to stick an engine in your Shermie.



with sheet styrene replacements for the cut off inners and used the same material for the front support braces. Live and learn, eh? If you just stick to the kit parts, assuming you want fenders, then you should have no problems. Mounting the fenders on the hull should also wait until you are about done with the rest of the tank so that you can properly paint and weather the track areas they will cover over.

The T Stands For Turret

For this new Shermie we get a new turret mold which does the early small-bustle casting justice. It has the low bustle slope, nice casting texture, and many early features. The stowage tie downs on the back are molded ribs, so I cut them off and replaced with brass jobs from the OTM set. Also, in a fit of inconsistency, Tamiya has provided molded on casting numbers on some parts of the kit (3-piece nose, commanders hatch, drivers box) but there are none on the turret or gun mantlet. A minor complaint to be sure. In the name of time (and fun) I resisted the urge to add some. I did use the kit provided appliqué armor on the right side of the turret and it fit and looked terrific.



Tamiya could have made the kit more versatile if they had given us the early small M34 mantlet cover, but we do get a nice M34A1 mount, again a common remanufactured M4 feature. Turret construction begins with the gun mount which includes most of the breech guts on the inside. I say most since the major parts are there, but many details are left for you to add if you so desire. This brings the kit on par with the inside of the old M4A1 76mm Sherman from Italeri, but goes two small steps further with a nice pair of rooftop periscopes and a commanders radio unit to put in the turret bustle. The gun barrel is one part with a hollowed out tip similar to the treatment on the old M4A3 kit. There is no mold seam to deal with, but I wish the parts better captured the slight flare at the muzzle end common to all the 75mm Sherman guns. Not a huge problem so I moved on.

The driver figure is supported by another post/platform part which has to go if you intend to open up the commander's hatches without him. The radio unit is visible from above too, so you could have fun detailing in the bustle area. I suppose we will soon see several aftermarket upgrades for the turret interior, perhaps including a turret basket. If you button up the tank as I did, then you won't have to wait for them.

The rooftop periscopes can be left off or used elsewhere (see above), and the armored covers for them can be glued on top of the periscopes for the open position, or just glued to the roof ports in the closed position. I chose the former approach. On the gun mantlet, I have found that most M4s used in the European Theater in WWII had two extra lifting eyes welded above the gun rotor just forward of the lifting eye (part D17) at the center of the turret roof front. The notch in the top profile of the gun mant-

let is there so that the mantlet clears these lifting eyes. Since many other M4s do not have the extra eyes, Tamiya is technically correct to leave them off. If you do any of the decal subjects, or any other ETO Sherman, look for them to see if you have to add them as I did. The spares box should yield up a pair.

I wanted to try to open the ejector port on the left side of the turret so that I could utilize the brass 75mm ammo set Tamiya is also selling now (on the ground anyway). I used a razor saw and scribing and bending to separate the splash guard from around the pistol port cover. The splash guard was cut into three parts which were then glued into the depression on the side of the turret. After dry, I drilled and enlarged the port hole to more or less correct shape and did a little putty work to fill joints in the splash guard. I simulated the inside detail on the cover, attached it to the turret in the open position and cobbled up a support rod for it. Not too tough to do I guess.

Finishing the turret required adding the kit provided blade vane type sight, the early non-folding .50 cal travel lock, the M2.50 cal machine gun (same parts as A3 kit but with a revised ammo can), and the radio antenna. I made the antenna aerial from copper wire. Slap the sucker on top of the hull and you are about done.

Pete Paints, Pat Putters

I painted the tank dark olive drab overall. I then applied a yellowish sand camouflage which was very "contrasty" and came back when all was dry with some drybrushing on the upper surfaces. Details were painted next and then the last of the delicate parts including two M.V. (#116-check your hobby shop railroad geek) lenses for the headlights were added. The tracks went on next and the pre-painted fenders were tacked on with liquid glue. I then dirtied everything up with real dirt most of which the editor removed when he took the beast home with him. He said it looked too drab (he meant dirty) so he washed most of my loose dirt off, thereby achieving the results you see here. Hey, turkey. YOU said I could dirty it up a bit. [Pete cries "foul" but his paint job looked so purty I wanted to show it off to the world. He'll get over it—Ed]

The kit decals provide for three tanks used in Europe by the U.S. Army. The first choice is a generic M4 from an unidentified unit photographed in France in the Summer of 1944. It has white stars, vehicle serial numbers and no other markings. The second choice is for the tank mentioned above from the fighting around Monte Cassino. It is tank number 14 from C company, 756th Tank Bn, 5th Army in Italy in February 1944. It was camouflaged in the

field with a tan or yellow sand wavy pattern over the dark olive drab and had large turret numbers and has stars with circle surrounds. A picture of this beast can be seen in the Squadron Signal Sherman in Action book along with an artistic painting in the center spread. If you check the photo you see that it has the improved gun mantlet but has not been upgraded with appliqué armor anywhere.

The third decal choice is for a tank named HURRICANE from H company, 68th Armored Rgt., 2nd Armored Division. This tank landed on Normandy beach shortly after D-Day, disembarking from a LST and with full wading kit installed. At that point it did have the markings Tamiya provides, but it was not yet camouflaged. A photo of this one as it comes off the ship can be found in Steve Zaloga's book *The M4 Sherman at War* (Concord Pubs.). A second photo of HURRICANE exists showing it undergoing field maintenance several months after D-Day. By this time it did not have the wading kit, it was camouflaged as Tamiya suggests, but it did not have the big white H on the turret either, that being used for D-Day only. For reference photos see Zaloga and Balin, *D-Day Tank Warfare* (Concord Pubs.) for the D-Day shot, and the later view appears in Zaloga's *M4 Sherman at War*. In the latter you can see that HURRICANE has the one piece nose, appliqué, and spoked bogie wheels.

The brass shells seen on our cover shot are from Tamiya too. The set includes empty casings that are hollow all the way to the end (giving rise to fantasies of actual scale firing loads), armor piercing rounds, and HE rounds. All are turned brass and exquisitely rendered and enough are provided for an exterior vignette. But not enough for a full

interior load, in case you are wondering.

O.K. Let's Go

So, that's most of the highlights on Tamiya's new Sherman kit. I think if you compare it to the expensive Panzer IV it comes up short in completeness, but compared to other Sherman kits it does real well. DML gives more parts for the buck in their M4s, but this M4 has version, ease of construction, fidelity and accuracy of the parts, and interchangeability of the extras all going for it. It will easily replace several aftermarket resin conversions for the old M4A3 kit, and more important it looks great once done.

With some of the minor omissions noted above, the price (about 39 U.S. dollars) is a bit high but considerably lower than the Axis tanks coming from this company. I have already bought a second one at a slight discount so shopping around will take out some of the bite, and if Tamiya America does a home boxed version the price could eventually moderate. Nonetheless, this is a great Sherman kit with lots of kit bashing possibilities, and for those reasons I heartily recommend it to you.

Simply M4, but seriously cool. ☺

—Pete Harlem

MMIR RECCE

Tamiya U.S. Medium Tank M4 Sherman (early production). Kit number 35190. Sample graciously provided by Tamiya of America. Suggested retail \$39.00.

Tamiya M4 Sherman Brass 75mm Projectiles. Kit number 35191. Sample graciously provided by Tamiya of America. Suggested retail \$14.00.

References

There are so many books on the Sherman—and many of them are very good. I won't try to list everything here just a few of my fav-o-rites. The following will serve you well.

D-Day Tank Warfare, by Steve Zaloga and George Balin. Concord Publications.

M4 Sherman At War, by Steve Zaloga and George Balin. Concord Publications.

Two of the more recent additions to the Sherman scene. Both are worth having and contain a good amount of interesting and unusual stuff.

M4 Sherman, by George Forty. Blandford Press.

Sort of the sleeper of the book on the Sherman. An excellent and concise look at the Sherman with a very helpful selection of interior photos taken of restored vehicles.

Sherman, A History of the American Medium Tank, R.P. Hunnicutt. Presidio Press. To know, know, know it, is to love, love, love it. Big ugly and expensive, but don't leave home in your Sherman without it.

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Zielgeraet 1221, The German's WWII Infrared System

One of WW II Germany's little known technical advances was the development and limited use of infrared (IR) night vision devices. This secretive equipment has long fascinated me and I've wanted to model it ever since I saw a photograph of an IR equipped Panther G in Spielberg's classic book *Der Panzerkampfwagen Panther und Seine Abarten*.

A lack of information and (most importantly) a good 1/35th scale Panther Ausf. G held me back. Over the years though, the information was collected and finally a kit worthy of the effort was released, the Tamiya Panther G Steel Wheel Version. Not only do we get a Panther that was really worth the wait, we also get three IR commander's sights!

These sights, correctly known as the "Zielgeraet 1221" (Sighting Device 1221), when mounted on the Panther, created a night fighting weapon known as "Sperber" (Sparrow Hawk). Tamiya has done an admirable job with these, but what do you do with the other two? Well, because the Germans believed in the necessity of combined arms operations, their plans called for the fielding of an entire family of weapons using IR technology. Luckily for us, the ZG 1221 was a common component to this family of weapons and so those extras can be put to good use on several projects.

Development

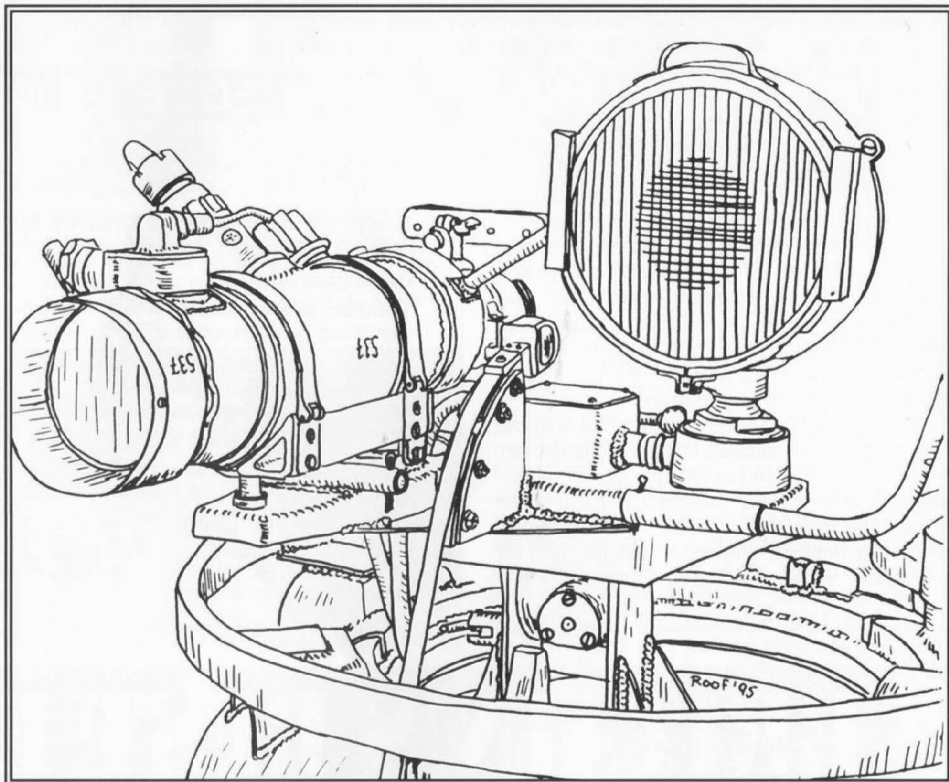
During the twenties and thirties, two of today's electronic giants, the Radio Corporation of America (RCA) and the Allgemeine Elektrizitäts Gesellschaft (AEG), were but infants. Already though, they were developing cutting edge technology.

In 1923, RCA patented the Iconoscope, the first all electronic television camera.² This was followed in 1939 by the RCA Orthicon, a true modern television camera. This television research by RCA in the 1930s led to the development of an image tube which could be used to convert infrared images to visible displays.³ RCA's research and development was undoubtedly followed very closely by its competitors, including AEG.

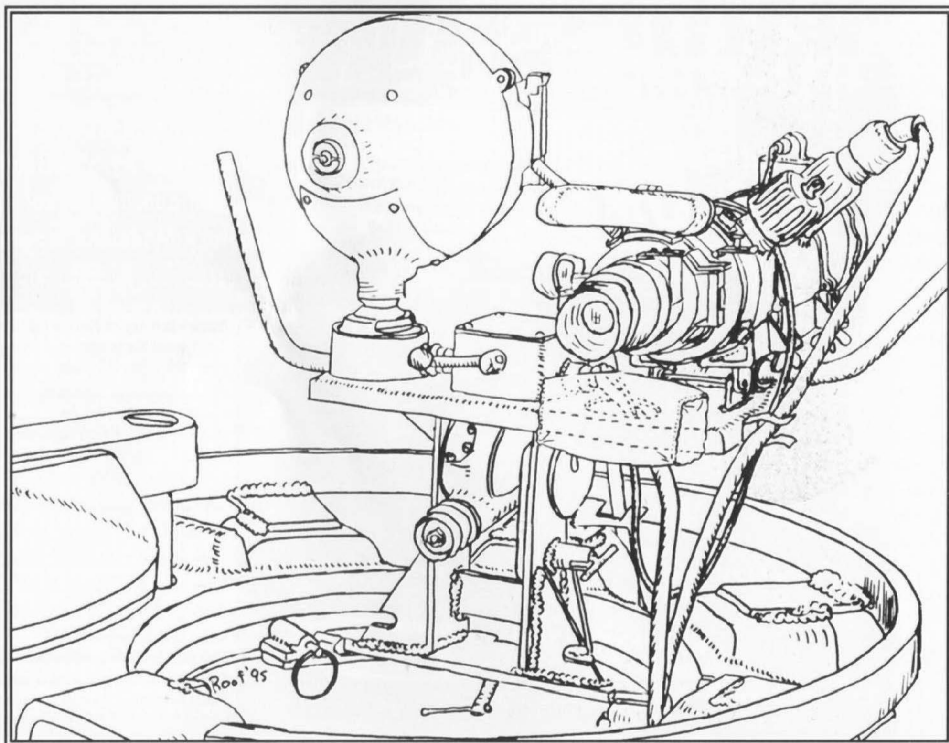
Concurrent with this scientific development, the German military of the thirties had within its organization the "Heereswaffenamt" (Army Weapons Department). The HWA was one of the first true military research and development organizations. It had as its mandate the bringing together of the captains of industry, the leaders of science and military representatives from all branches of service. Their purpose was to seek military and industrial advances through the application of emerging scientific ideas.

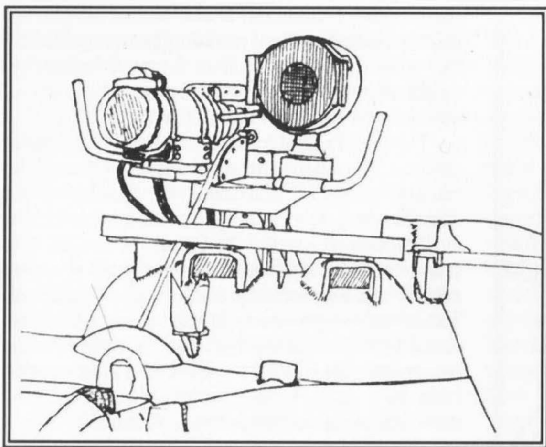
The HWA was organized into numbered "Waffenprüfungsamte" (Weapons Testing Departments). One of these, WaPruf 8 was responsible for optic devices to include IR sights.

WaPruf 8 began as early as 1936 on the development of IR "scope technology applicable for use as driving, observation and targeting optics."⁴ The development was carried out jointly by AEG and the "Reichspostforschungsanstalt" (Reich's Postal

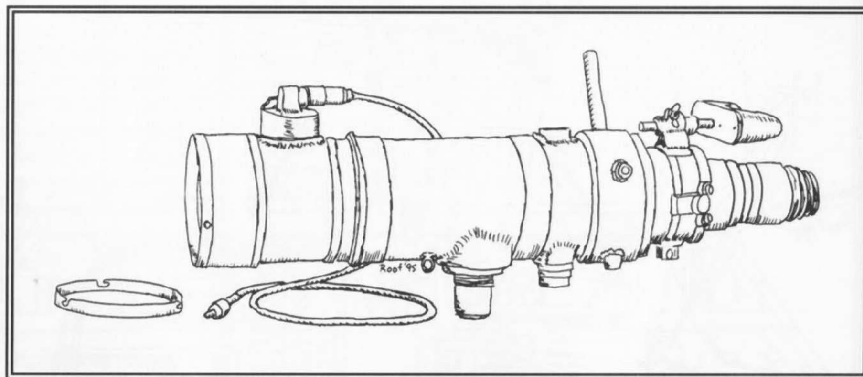


Above: a front view of the "Sperber" system installed on the commander's cupola. Below: rear 3/4 view of the "Sperber" system. Note the power cable routing especially through the hole in the mounting table under the ocular lens assembly.

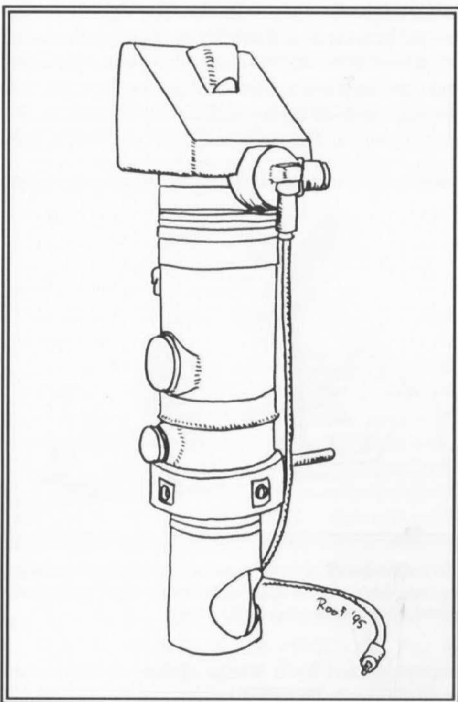




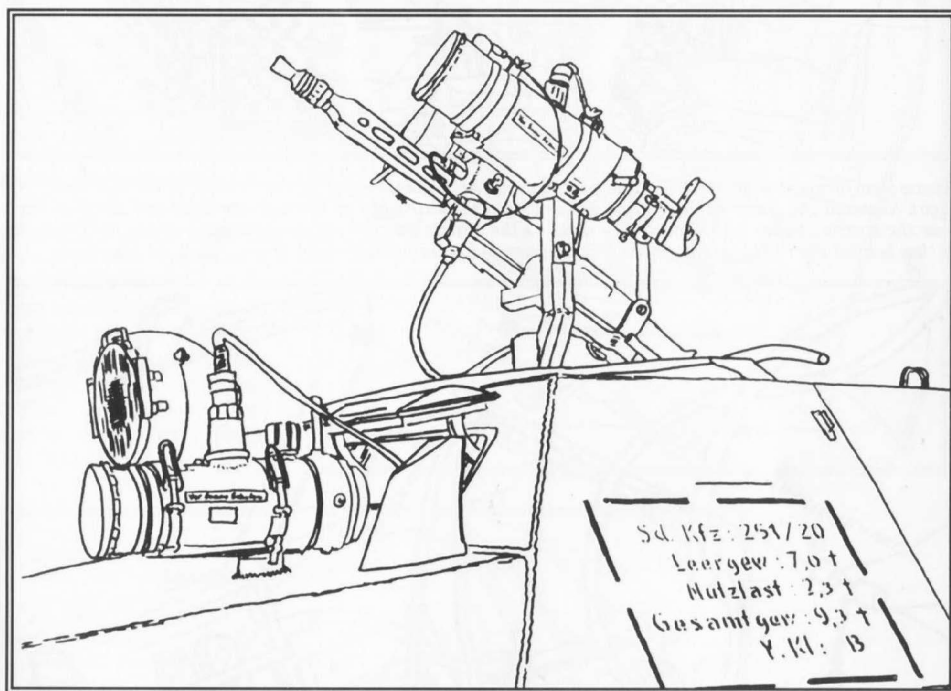
Above: note the flat steel tape running into the turret roof and the splash guard in front of the hole for it. Also note that the handle on the cupola has been cut off.



This is a view of the ZG 1221 detached from any mounts. It depicts the high power hinged ocular lens assembly with the left (port) side latch. Also shown is the illuminated reticule with the reostat knob (offside) and power cord. The sheet metal sun cover is in front. Note that the main power input socket dust cover and keeper chain are missing.



Above: the original photograph of this was captioned as a "driving" periscope. The illuminated sight reticule assembly suggests that this might have been a prototype gunner's periscope instead. No evidence, that I could find, exists that this was ever installed on a vehicle for actual use.



The "Falke" installation. Of special interest is the wedged shaped splash guard over the power cable hole, the antenna mount and the absence of the high magnification ocular lens assembly. Both ZG 1221s have sun covers installed on the objective ends.

Research Organization).⁵ By 1942 a prototype IR sight was mounted on a Pak 40 auf Sfl Pz II, Marder II. Troop testing took place throughout 1943 at the Panzertrupenschule, Fallingsb. In 1943 WaPruf 8 was charged to complete the development and the efforts of all the services were combined into a single committee headed by Doctor of Engineering H. Gaertner. These efforts led to the ultimate fielding in late 1944 of several types of IR equipment.

The Equipment

The Panther Ausf. G "Sperber." This is the vehicle which can be built using the Tamiya kit. Some notes about IR related modifications are in order, though. The ZG 1221 as comes with the kit is very nice. At a minimum the average modeler should have no trouble adding the two visible main power cables.

The first should run from inside the turret up to the longest and largest cylindrical projection com-

ing out of the center of the sight. This points up and out to the two o'clock position when viewed from the rear. This is the power for the sight and it runs from the HS5F power supply.⁶ The second cable should run from inside the turret up through a 2.5-3.0 mm diameter hole drilled through the sight's mounting table directly under the ocular lens. It then leads into the right hand side of the small square switch box located between the sight and the spot light. This is the power cable for the 200 watt spotlight.

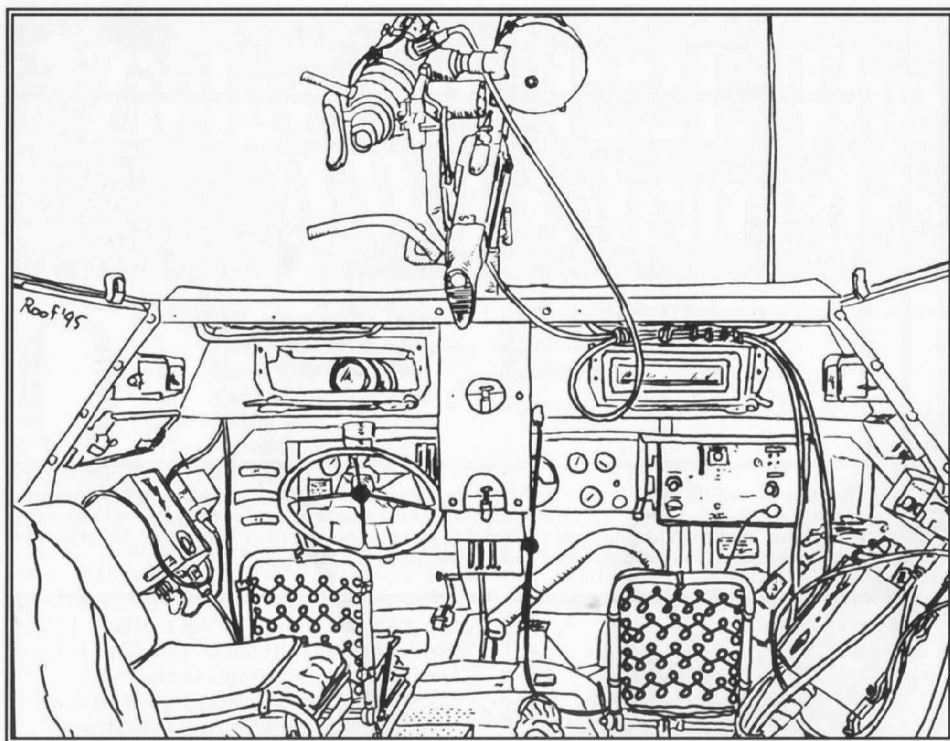
Next on your modification list should be the removal of the commander's cupola hatch lifting handle. On the prototypes these were removed to allow the sight to traverse through 360°.

Moving on in the degree of difficulty is the addition of the illuminated sight reticule and its power cord. On the drawings this is the small "box like" contraption on the top front of the sight. Its power cord leads up through the same hole on the

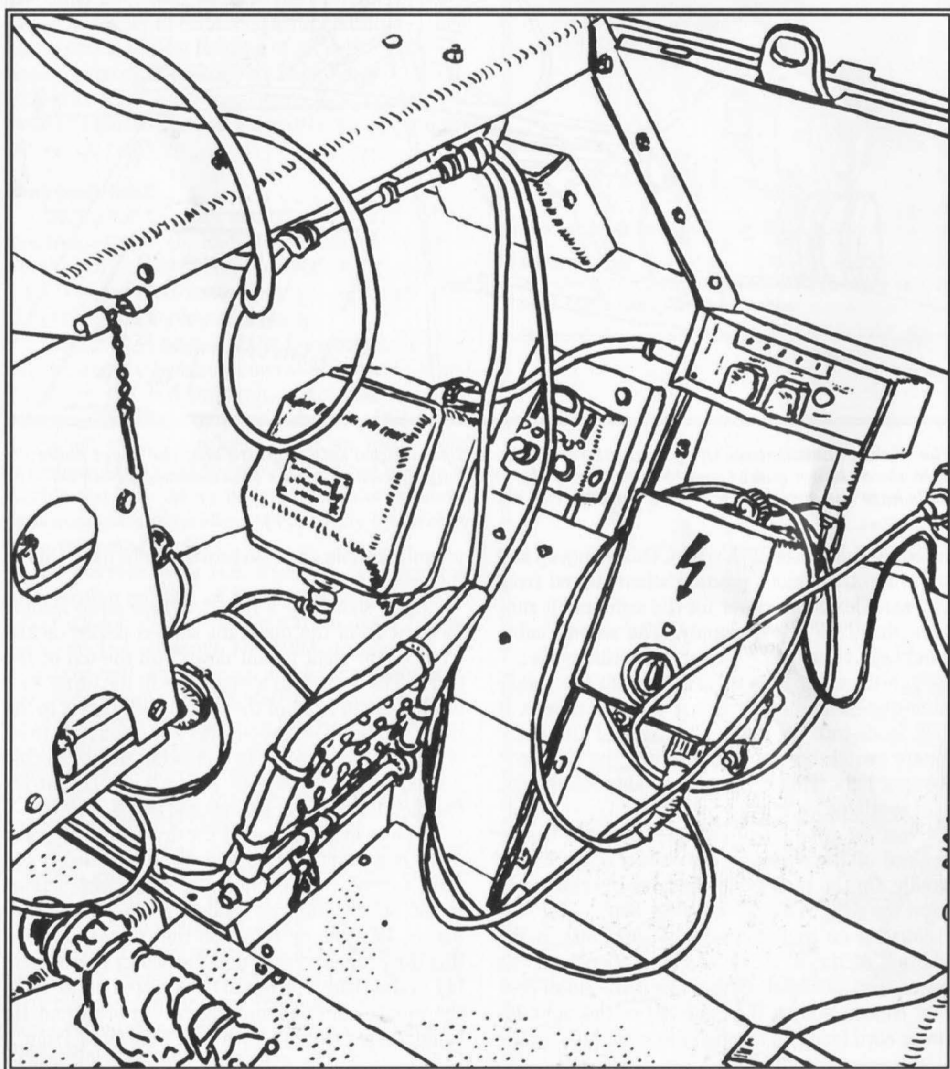
mounting table and also into the right hand side of the switch box.

There should be a flat steel tape strap leading forward from the quadrant shaped device on the front of the sight mount down into the top of the turret. This leads into a small hole in the turret roof located just in front of the cupola and slightly to the right (starboard) of the cupola's centerline. The front of this hole is protected by a crescent shaped casting welded to the turret roof. See any of H.L. Doyle's Panther drawings for the size and shape of this.⁷

A close examination of the drawings will show many more small details which can be added. If you want to model the commander giving instructions to the driver, note the following. Since the driver had no IR sight, he relied on the commander. For this the commander swung the ocular lens assembly to the right (starboard) and rested his head on the square chin pad and the curved brow pad. He could then use both eyes and benefited from a



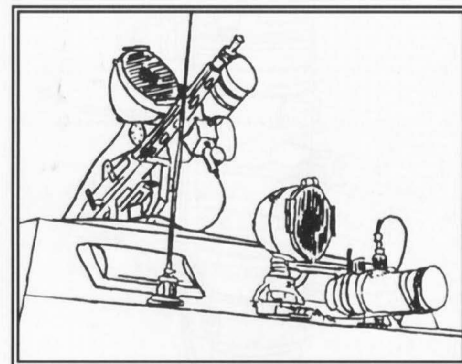
Above: view forward from the troop compartment of the "Falke." The HS5Fs are visible to the left and right. Note how the power cables for the driver's sight pass straight up through the hood and the gear box over the steering wheel which moved the sight as the vehicle was steered. Below: details of the HS5F installation behind the radio operator. The transformer to the immediate right of the seat is for the radio.



wider field of view. The ocular lens is kit part E7 less the pads. As a final modeling note, any ZG 1221 that is being displayed as if its mounted during daylight, but not in use, should have the objective end covered by a flat sheet metal disk.

The SdKfz 251, Ausf. D "Falke." This vehicle can be constructed using the Tamiya 251 kit and the remaining two ZG 1221s from the Panther kit (a coincidence?). The "Falke" (Falcon or Hawk) was an IR equipped escort vehicle for Sperber units. It transported Panzergrenadiere whose job it was to provide close in security during night operations. The driver was provided a ZG 1221 minus the illuminated reticule and the high magnification ocular lenses (kit part E7). This allowed him to drive with both eyes open in much the same fashion as described above for the Sperber commander.

This sight was mounted with an IR spotlight directly in front of the driver's vision flap. The sight and spotlight were connected together with a bell crank arrangement so that when the sight moved left or right the light followed. The sight was connected by a vertical shaft to a gear box at the steering wheel. When the steering wheel was turned the sight moved with it. Power cables for the sight and spotlight passed up through a hole located to the immediate left front of the driver's visor. This hole



An additional overall view of the "Falke" installation. Note the IR spotlight is mounted on a modified Bosch armored light mount.

was protected by a wedge shaped splash guard welded over it. The HS5F power supply was located on the hull wall to the driver's left rear along with the on/off switch box.

An additional ZG 1221 was mounted coaxially with the MG 42. The mount for this was a complicated device. My best advice for modeling it is to refer to the drawings. It appears to mount the MG on a carrier similar to the heavy tripod. The switch box seems to be about the same size and shape as on the Panther but had a key switch instead of a knobbed handle. The HS5F power supply and related switches were located on the wall to the right rear of the radio operator's seat.

Located on the lower left front of the bow plate was an additional Bosch armored light mount. It's unique to the "Falke" and "Uhu" and may have been there as an alternate location for the driver's IR spotlight. Along the sides of the troop compartment were cat walks identical to those on the "Uhu." The antenna mount was relocated to the hood forward and right of the radio operator's visor. This was also common to the "Uhu."

The SdKfz 250/20 Ausf. D "Uhu." This vehicle can also be constructed using the Tamiya kit and an extra ZG 1221 from the Panther. The "Uhu" (Owl) was an IR observation vehicle also intended for Sperber units. It provided longer range

observation and presumably the 6 kW carbon arc IR searchlight could also be used to designate and illuminate targets for the Sperbers.

The ZG 1221 installation for the driver was identical to the "Falke." There are three options for modeling the searchlight assembly.

Options one and two are to use the resin and PE conversion kits from either the MB Models or Verlinden conversion kits. Unfortunately, both of these kits were mastered before the release of *Sturm & Drang* Vol. 3 SdKfz 250 & 251. This is the single best photographic reference for the SdKfz 251/20. Due to the lack of reference, both kits are only vaguely accurate. The interesting thing is that both are deficient in different areas, so it is possible to create a fairly accurate vehicle using elements from both. Each kit is very different in its approach to the subject. The VP kit contains a more extensive sheet of brass, for instance. While the MB kit includes a less extensive sheet, it does include a small piece of red-colored film for the lense of the searchlight. The VP kit is all resin, while the MB kit contains both white metal and resin. Each searchlight is constructed in a different manner, both breaking down into unique sub-assemblies. Each kit does include the ZG 1221, but neither is as nice as those provided in the Tamiya kit.

Option number three is scratch building (duh!), but either of the two available kits would provide a good head start. Whatever option you choose, the accompanying drawings, S&D No. 3 and H. L. Doyle's drawings in the Spielberger's books would make this the most accurate way to go.

The following points might be helpful when modeling the "Uhu."

The searchlight traversed through 360 degrees. For traveling, it was traversed to the rear and collapsed forward. It then rested on the pads mounted on the transverse rest located across the troop compartment. The forward area of the troop compartment must have contained a large gasoline powered generator for the 6 kW searchlight. This was positioned on the right (starboard) side with a passage-way to the driver's compartment along the left (port) side. The entire forward area of the troop compartment appears to have been decked over. To the right (starboard) of the searchlight was a stacked set of storage chests. To the left (port)... who knows? I was unable to uncover any photos of this area.

The HS5F Power Supply. This was apparently a feature common to all ZG 1221 installations. The David McCracken article gives the best detailed information on it along with a very nice close up photograph. Once you know what it is, it becomes really obvious in photographs of IR sight installations. Refer to the drawings for modeling them.

In the Sperber the HS5F was probably mounted on the inside turret wall somewhere to the commander's 6 to 8 o'clock. This installation was more than likely very similar to that of the Falke.

There appear to have been two slight variations of the HS5F, one with the top constructed flush with the edges and the more common with the top slightly recessed. All the vehicles with the ZG 1221 installed had an additional generator run by the vehicle's engine and extra batteries.

The Zielgeraet 1229 "Vampir." The "Vampir" (Vampire—only the Germans!) was an IR night sight equipped MP 43/StG 44 assault rifle. Panzergrenadiere outfitted with these were to be transported in the Falke. The sight and spotlight added 5 pounds to the weight of the rifle and the back pack carried power source weighed 30 pounds.⁹ It had an effective range against a single

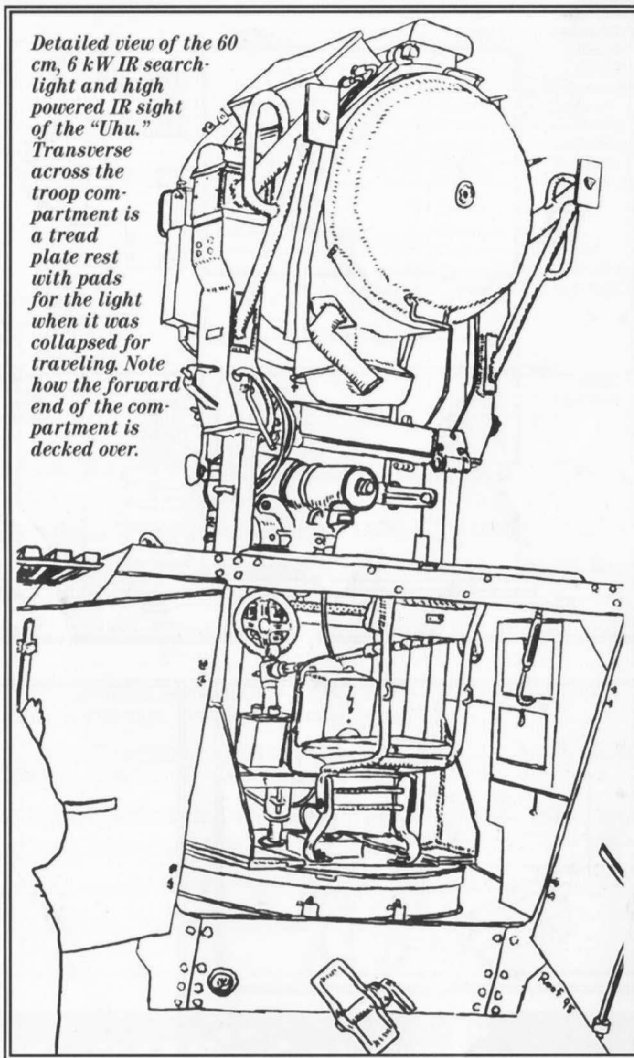
person of about 70 meters. The manufacturer, Ernst Leitz, Wetzlar, reported that 310 complete night sight units were delivered.

Modeling the Vampir presents another scratch building challenge. The back pack power supply was carried in a small wooden chest with a modified gas mask carrier under it. The shoulder straps appear wider and more substantial than the leather cartridge belt suspenders. The best 3/4 rear view photograph suggests strongly that the whole thing was strapped to a "Traggstell 39" (Pack Frame 39).¹⁰ The actual straps were similar to those molded on the Flammenwerfer 41 gunner in the DML German Sturmpanzier (Kursk 1943) set (part number D2). Tamiya, DML and Italeri all offer MP 43/StG 44 assault rifles as accessories. The drawings show what details are available.

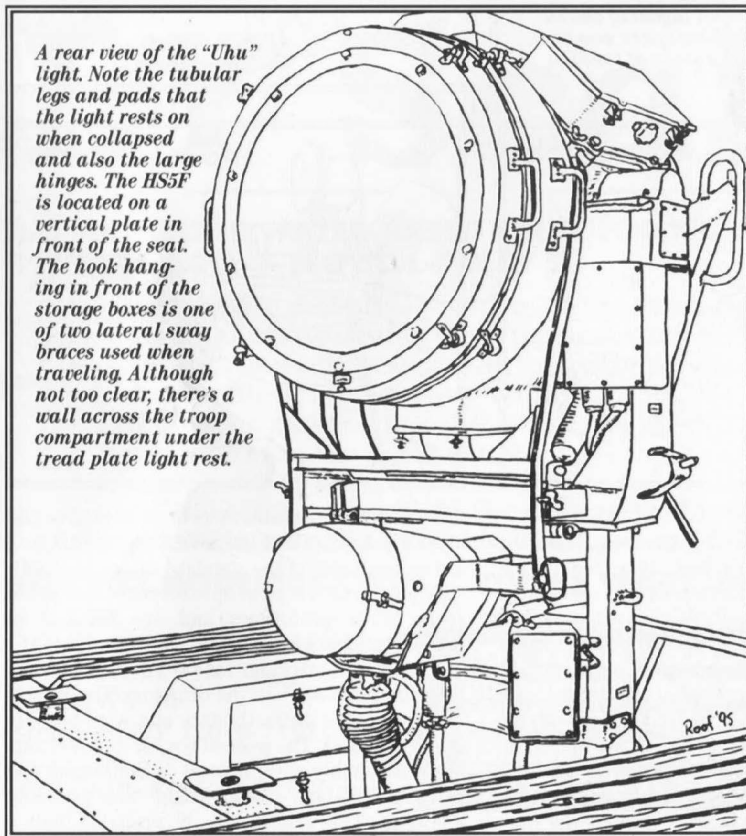
Colors and Markings

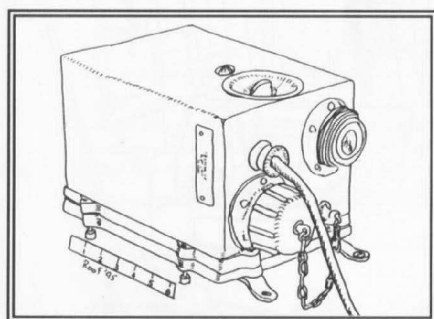
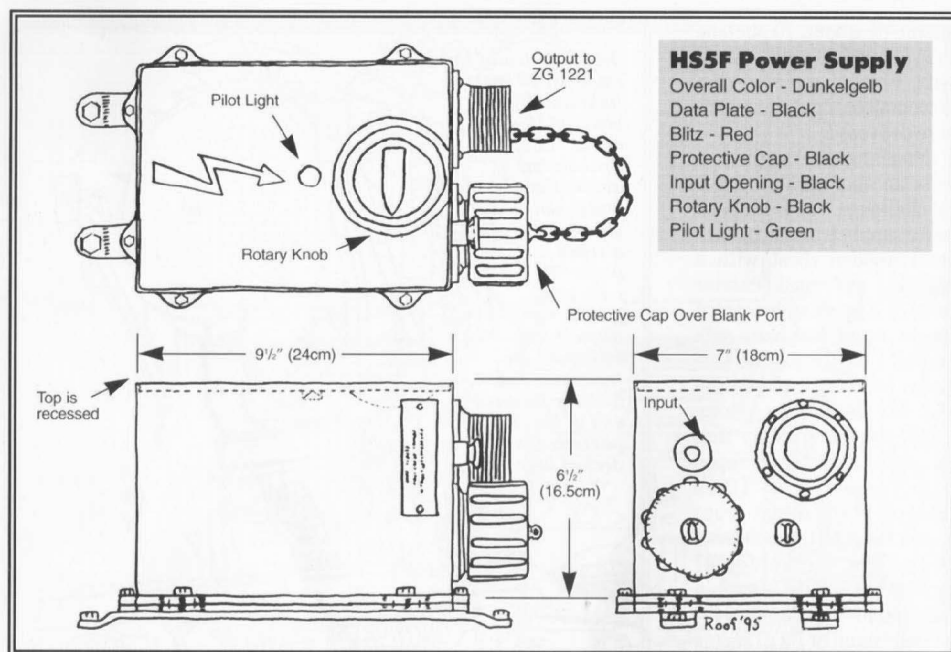
The basic ZG 1221 and mounting fixtures seem to have been painted "Dunkelgelb." Many of them have a small narrow outline rectangle painted along the side. Inside this was the statement "Vor Sonne Schutzen" (Protect from Sunlight). This was in dark colors. Perhaps all black or red or a

Detailed view of the 60 cm, 6 kW IR searchlight and high powered IR sight of the "Uhu." Transverse across the troop compartment is a tread plate rest with pads for the light when it was collapsed for traveling. Note how the forward end of the compartment is decked over.



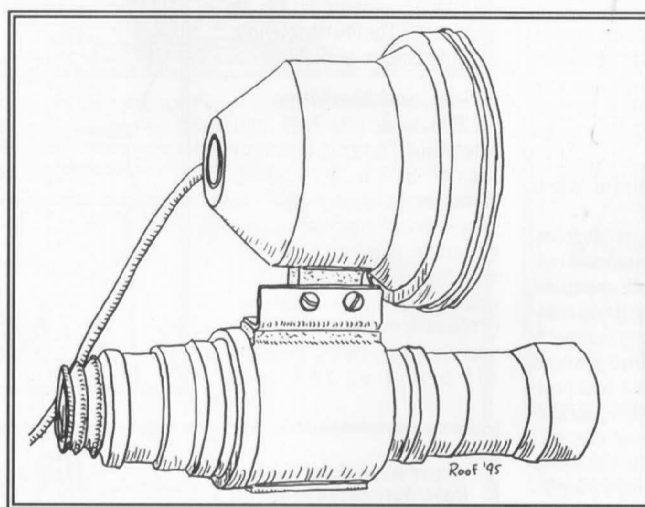
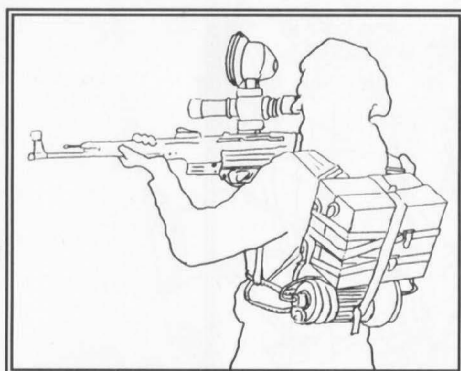
A rear view of the "Uhu" light. Note the tubular legs and pads that the light rests on when collapsed and also the large hinges. The HS5F is located on a vertical plate in front of the seat. The hook hanging in front of the storage boxes is one of two lateral sway braces used when traveling. Although not too clear, there's a wall across the troop compartment under the tread plate light rest.





Top: the HS5F power supply with the recessed top. Above: the less common HS5F power supply with the flush top.

Below left and right: Overall layout of the ZG 1229 "Vampir" showing the backpack mounted power supply. Right: close up view of the ZG 1229 "Vampir."



combination of the two.

The Panthers outfitted as Sperbers, from the two examples photographed, appeared in the ambush camouflage.¹¹ Markings on the tanks were sparse. The one in Spielberger's book only had Balkenkreuze on the upper hull front. The tank in Finizio's article is described below.

The Falke and Uhu special equipment also seems to have been painted in Dunkelgelb with the exception of the MG 42 mounts. They appear to have been black. As mentioned earlier, at least one Falke received the standard rectangular railroad shipping data stencil in black. Excepting the stan-

dard "WH" license plates there don't seem to be any other markings. All of the SdKfz 251s in S&D, No.3 are camouflaged in the standard three toned soft-edge paint jobs. Those in Spielberger's book would seem to be prototypes and are finished in "Dunkleleib" without camouflage.

Colors and markings for the HS5F power supplies are annotated on the drawings. The Vampir night sights are distinctly dark and were possibly semi-gloss black. The wooden box for its power supply was possibly natural wood or Dunkelgelb and the modified gas mask carrier was probably Feldgrau. The Traggestell 39 probably had a

Feldgrau or black frame with khaki or light olive canvas straps.

Organization and Employment

It's at this point that the story of the IR equipped units becomes very sketchy. According to articles written by Dr. Gaertner after the war, the planned organization for the Sperber units called for Panzergrenadiere armed with the Vampir to be transported in the Falke. The observation vehicle Uhu was also to be included. As already mentioned, the infantry was to provide protection for the Panther units at night.¹² Peter Senich further states that "the Vampir units were extremely delicate and considered altogether too cumbersome in an attack situation,"¹³ which fits neatly with Germany's end of the war defensive situation.

However, at least one action was fought by an ad hoc unit on the Western Front. This unit was formed around the remaining cadre from the Panzertrupenschule, Fallingsbostel. Its designation was Kampfgruppe Schulze.¹⁴ In it were five IR equipped Panthers from the Panzer Jaeger Lehr und Versuchs Kompanie which was responsible for testing, evaluation and training on new equipment. These were combined with six Tiger Is and an

unknown number of SdKfz 251s. The Panthers were under the direct command of Major Schulze, the Kampfgruppe commander.

On the morning of 9 April 1945, Major Schulze led his Panthers and a number of the SdKfz 251s against the British bridgehead over the Weser River near the town of Wietersheim, east-northeast of Minden. By midday only Major Schulze's Panther remained. His tank was finally lost on 11 April near the town of Buckeburg. This engagement was fought against elements of the U.S. 5th Armored Division.

Two photographs in Giuseppe Finizio's article are captioned as Major Schulze's Panther.¹⁵ They show an Ausf. G with a chin mant-

let, low fan covers, no zimmerit and an ambush paint scheme. The markings are given as a red "8" centered on the glacis and a white "8R4" (?) on the turret sides. The "8" is quite clear but the turret markings appear to me to be darker than white. This could just be the small size of the reproduced photographs.

There is more G2 on the way. I was fortunate enough to attend a seminar presented by Thomas Jentz on the development of the Panther tank. This was given as part of the Armor Modeling and Preservation Society's (AMPS) first annual national convention in Aberdeen, MD.

Mr. Jentz, noted author and expert on German armor, discussed the results of research which he's done in preparation for a new book on the Panther.¹⁶ Among the great quantities of new information that he presented were some details on the IR Panther and its employment on the eastern front. Rather than risk misquoting Mr. Jentz's precise descriptions, I'll just give you an unqualified recommendation for his forthcoming book.

The grapevine has it that another well known author, armor expert and citizen of the "Great White North" is preparing a complete treatise on the entire story of WW II Germany's development and use of IR equipment. I for one, can't wait! Happy modeling. ☒

—Mike Roof

FOOTNOTES

1. There were two code names reported in allied intelligence documents written during the war, "Puma" and "Sperber." I believe that the latter was probably correct. This would have been in keeping with the bird of prey theme for the other code names given to IR equipment. See Jeffrey D. McKaughn, "German Infra-Red Panther," Museum Ordnance, July 1994, p. 9. Also see George Forty, *German Tanks of WW II "In Action"*, Sterling Publishing Co., Inc. (New York, NY 1987), pp. 107-108, which references the original 31 July 1945, 21 Army Group Technical Intelligence Report.
2. "Television," *The New American Encyclopedia*, Vol. 13, Books Inc. (New York, NY 1971), pp. 4950-4951.
3. Peter R. Senich, *The Complete Book of U.S. Sniping*, Paladin Press (Boulder, CO 1988), p. 177.
4. Walter J. Spielberger, *Panther & Its Variants*, Schiffer Publishing Ltd. (Atglen, PA 1993), p. 164.
5. Peter R. Senich, *The German Assault Rifle: 1935-1945*, Paladin Press (Boulder, CO 1987), pp. 309-310.
6. David McCracken, "German WW II Infrared Night Sight," *AFV News*, Vol. 19, Jan.-Apr. 1984, George R. Bradford Publisher (Cambridge, Ontario, Canada), pp. 15-17.
7. Every drawing that I've ever seen of this detail shows the splash guard located directly in front of the cupola. I believe that this must be incorrect since the forward periscope guard would prevent the tape from running in a straight line. I also believe that this tape was spring loaded. The commander could reach forward and grasp the tape by the thumb loop on the quadrant end of it and, by pulling slightly to the rear, the tape could be slipped off the quadrant. It would then be allowed to pull forward under spring tension to a stop located just inside the front of the AA MG ring mount. In this way the tape would be out of the way allowing the sight to traverse freely. The best photograph of this detail in my reference collection is on p. 33 of Bruce Culver's *Panther in Action*, Squadron/Signal Publications (Carrollton, TX 1975). It's a right 3/4 elevated front view of the RAC Tank Museum's Panther G.
8. Again, my pet theory is that the Sdkfz 251s modified for this project all received certain basic modifications. Once these were done those vehicles destined to be "Uhu" were further modified. This would account for the Sdkfz 251/20 data stenciling on a closely photographed "Falke." See Sturm & Drang, No. 3, "Sdkfz 250 & 251," *Sensha Magazine Co. Ltd.* (Tokyo, Japan 1991), p. 87.

9. *The German Assault Rifle: 1935-1945*, p. 309.
10. *ibid.* p. 295. For details of the "Traggestell 39" also see John R. Angola and Adolf Schlicht, *Uniforms and Traditions of the German Army 1933-1945*, Vol. 3, R. James Bender Publishing (San Jose, CA 1987), pp. 66, 75-76.
11. See Spielberger's *Panther & Its Variants*, p. 165 and Giuseppe Finizio, "The Little Known History of Kampfgruppe Schulze," *AFV News*, Vol. 26, Jan.-Apr. 1991, George R. Bradford Publisher (Cambridge, Ontario, Canada), pp. 3-4. *The German Assault Rifle: 1935-1945*, p. 310.
12. *The German Assault Rifle: 1935-1945*, p. 309.
13. *ibid.* p. 311.
14. "The Little Known History of Kampfgruppe Schulze," p. 2. Also see *German Tanks of WW II "In Action"*, pp. 107-108.

George Forty gives the designation of this unit as Kampfgruppe Uhu. Apparently this was extracted from the original 21 Army Group Technical Intelligence Report. This could have been a translation or comprehension mistake on the part of the soldiers who wrote the report. Also possible is that the interrogated German POWs, who were members of the Panzer Jaeger Lehr und Versuchs Kompanie gave an "in-house" school code name for their test project. Last, but not least, the memories of Mr. Finizio's sources could have faded over the years. At any rate, there's little doubt that the action was actually fought and that 4-5 "Sperbers" participated in it.

15. This book is scheduled for a fall '95 release. Eastern Front/Warfield Books listed it in their June 1995 Update: "Coming in fall 1995... *Panther by Jentz*, 200 pp, 200 ph, L, E, HC. Comprehensive study of the Panther tank by armor expert Tom Jentz. \$45.00."

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One Tiger to go with everything on it please.



Editor's Note: This is the first in what we hope to be a series of articles exploring the huge amount of aftermarket sets for armor models. The intent is to show as much as possible of what is available for a specific kit. Most of this junk is expensive, so we'd like to give you a little peek at what you might be buying. Hopefully, we'll cover it all, but by all means if there is an individual or a company out there that knows of additional products, let us know!

So you want to do an early Tiger huh? This article explores converting and backdating the Tamiya late Tiger I to the earliest version and how to prepare it for display on a rail car. Due to the sheer volume of work involved, I won't be able to document every nut and bolt in these pages. I'll try to cover all the major points and rely on the photos to tell the bulk of the story. There are more in progress shots than finished ones, so this will help you understand what I did.

I divided the work up into three main sections. First the detailing of the Tiger (this also covers the transport preparations), then the construction of the rail car and then the construction of the loading ramp.

Catch a Tiger by the Toe...

The Tamiya Tiger has been around for about five years or so. It's a good kit and it was the first Tamiya armor kit to include link-to-link right in the box. It was expensive when it first came out, but it's one of the hobby's better bargains now at around twenty-five bucks.

Let's get to the good part.

The first thing I did was to plug all those damn holes in the Tamiya kit! These were originally for the many tools and other add-ons and there's a bunch—especially in the turret.

There are a few things that I hacked off the kit; the splash ring around the turret opening was removed (it's a later feature) and the outer portions of the fenders were cut away. Remember, we're gettin' our Tiger ready to ROLL.

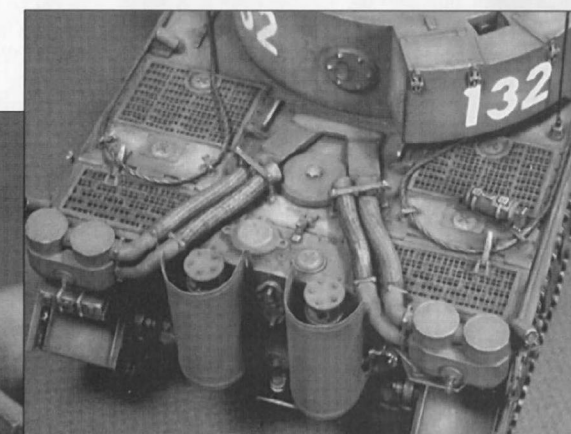
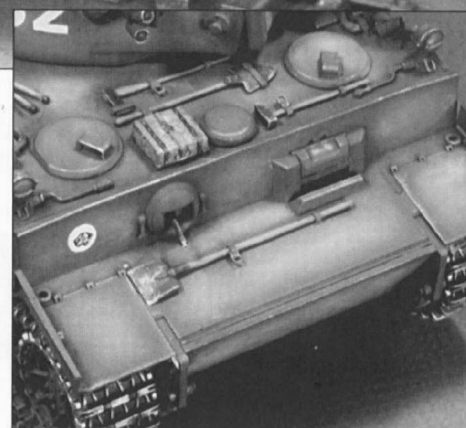
The first item added was the OTM fans. These go into small boxes you construct and place under the back deck. Of course you do this before closing up the hull. It's too bad they're nearly impossible to see once hull is buttoned up. But they are fun to build.

I like to build from the bottom up so I started gluing parts there first. I'm using the ModelKasten early Tiger I wheels here and they are molded in brown styrene and come in a simple hanging bag package.

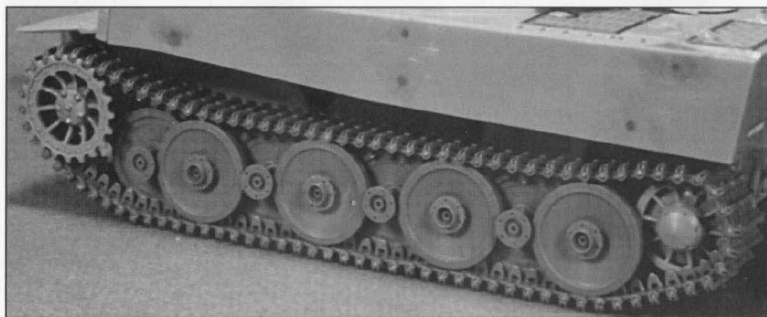
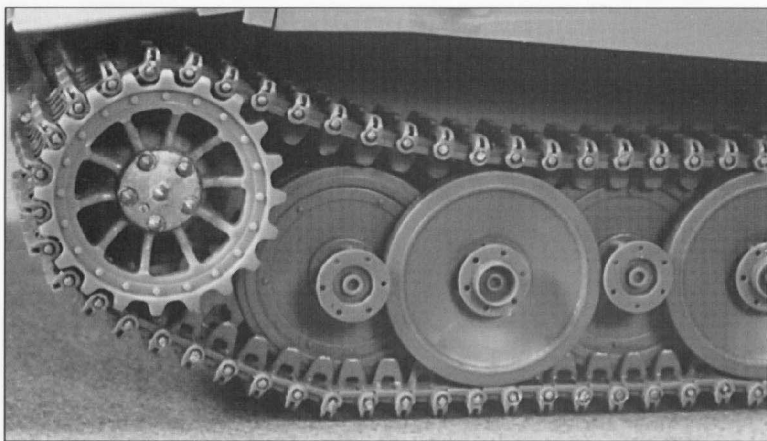
There is very little clean-up on the wheels themselves and they are a fast build. Since I was displaying this as part of the rail car, I left the very outside wheels off. The MK set provides open hubs for this, which I thought was their nicest feature. You should drill out the remaining wheels if they are to be stowed along with your model. The MK kit provides all the wheels with the proper face bolts. I built all the wheels first, then glued them to their torsion arms, but I left the arms unglued. This allows the positioning of the arms later. The Tamiya kit even has the little stopper above each arm to facilitate this.

The drive sprocket needs to be modified by removing the existing hub and replacing it with a new white metal part from the MK set. I did this with a Dremel tool set to a slow speed. If you're careful, you can save the bolts from the old hub for your parts box. Be careful not to go too deep when removing the hub. Note the position of the bolts on the replacement hub and their proximity to the arms of the sprocket.

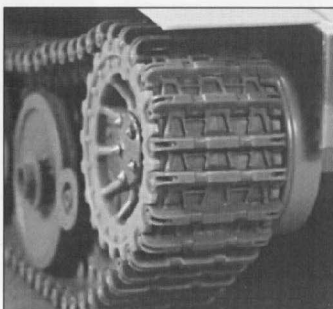
Next I built and added the tracks. The MK set is workable which means that you must insert two



We start right off with the good stuff. The large shot shows the finished piece. Yup, it's big—over twenty inches long! The shot at far left shows the tank off the car. Note the many details that depict it as a tank "in transit," such as the tracks, wheels and the fenders. The smaller shots at left illustrate the many added bits as described in the text. Of special interest is the Fiesl air-cleaning system mounted on the back deck. The turret roof seen in the photo at left is another all-new replacement item. If you look closely, you can see the fine wire electrical leads feeding into the smoke dischargers.



Above and right: three views of the MK tracks and wheels. The top photo shows the individual track teeth well. You can also see the white metal replacement hub on the drive sprocket here. Below: the completed run. Look at the wonderful drape of the finished track. Right: a close-up of the track links. The face pattern is crisp and clean.



small plastic pins into the sides of each link. It's a little intimidating at first, given the complexity of all the parts. It's actually easier than a typical non-workable set, because you're not under the gun waiting for the glue to set.

I removed all the links and cleaned them up first. Not too much work here, there is no flash at all and the only clean up is the sprue lugs.

A small jig is provided to help align all the links during assembly. I placed four links at a time in the jig. The pins come pre-spaced in sets of four. These align perfectly with the four in the jig. A little liquid glue was applied to the ends and then the four were slid in. Don't be shy on the glue. Once the pins are in, they are not in contact with the joint of each track. You'll end up with several sets of four link runs. MK then provides single pins for joining these together.

I created two runs of 96 links, per the instructions. This is right on the money by the way. You can add extras if you want to show your vehicle being loaded. This will give you some extra slack to run over the articulated suspension.

The best part about these is the way they drape across the roadwheels. Leaving the suspension workable allowed my kit to be photographed running over the loading ramp. There are lots of possibilities here. Just think one up!

Working my way up from the tracks, I added the side skirt mounting lugs next. These were provided

in the MK wheel set, oddly enough, and were very finely rendered in the brown colored styrene. MK provides a scale drawing for their proper positioning on the hull sides (thank you ModelKasten). I measured out the drawing and the hull to mark the correct location for the bolts. The very forward most lug is not shown in the MK drawing. Extras are provided, so they should be placed according to the spacing of the other bolts. I just eyeballed mine.

Next I began building the Feifel system. I

should digress here for a second and say that my MK backdate set was originally purchased in France, where many of the parts are manufactured locally. Because of this, some of the original white metal parts were cast in tan resin. This simplifies the construction process somewhat. The cupola, for example, was originally broken down in several metal

pieces and it's cast in resin as only one.

On to the Feifel system. This is also recast in resin, where the instructions show it as white

show a lug virtually identical to the fender lug. Of course you can use anything. But you'll know it's there! I added small bits of chain to the backs of each can. These were retaining chains for a small clean-out plug located on each unit.

MK provided lifting lugs for the armored exhaust covers. These are small white metal parts. Also provided in white metal are the pop-up covers for the mufflers—a neat feature. I located the track tool box on the left and then dry fit the OTM etched heat shields. These were left unglued so that the inside surfaces could be painted. The shields should be shaped first so that they clear the Feifel hoses.

I left all the hoses unglued to facilitate painting. I drilled and pinned the large hose brackets and the instructions do suggest this. You may need to consult your references for assembly on the hoses and brackets—the instructions are a bit on the vague side. There are some surprisingly good shots in the old Squadron Signal "In Action" book on the Tiger.

There are a few other small mods that need to be made to the rear engine deck at this time. The large hatch stop needs to be relocated towards the center of the deck. This is done so that it will clear the Feifel hose brackets. A new filler cap is also added at this point, along with a new white metal inertia starter plate added between the heat shields.

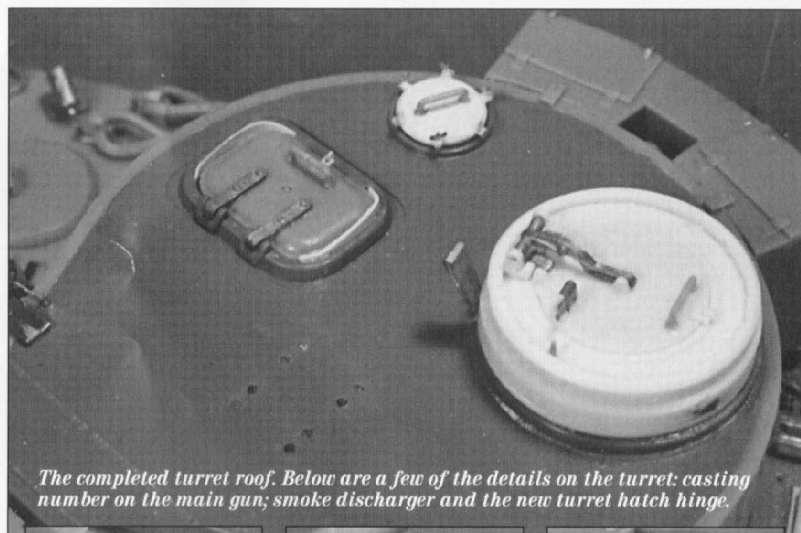
The spiffy OTM two-piece engine vent screens were added at this point too. These finely etched parts are nice and thin. Just adding these really dresses up the back end of this kit.

All of the smaller, more delicate parts such as the tools, bracket and S-mine launchers were added later. Now let's look at the turret.

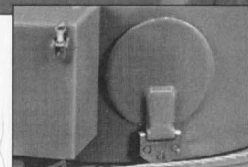
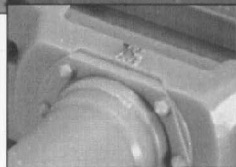
Meine Turret

The first thing I did was complete the basic construction of the turret. The MK set comes with a replacement roof panel in the brown-colored styrene. Be careful when adding the roof as it is a bit of a loose fit. Make sure that it is all the way to the rear and that the leading edge is parallel to the gun mantlet. Liquid glue works best here.

I added the cupola next. As I mentioned, this was originally several white metal pieces and the instructions still show it as such. Although I appreciated the time savings, the initial white metal version



The completed turret roof. Below are a few of the details on the turret: casting number on the main gun; smoke discharger and the new turret hatch hinge.



did look kinda cool [this kit will be available all in white metal when it's released in the U.S.—Ed].

The hatch hinges and hatch stop are still in metal and do allow the hatch to be constructed workable, if you so desire. The placement of the cupola is fairly critical. The hatch should open at about the two-o'clock position and the episcopo that is immediately to the left of the hatch hinge should face forward to the twelve o'clock position.

New replacement hinges are added to the loader's hatch and small splash guards need to be added to the hatch opening from strip styrene. A template for these is provided in the MK instructions. It also mentioned that the grab handle should be repositioned from the side to the middle of the hatch top. As a finishing touch I scratch built the locking brackets from styrene bits.

Next comes the addition of the new pistol port on the left hand side of the turret. It helps to add the stowage box first to give you an idea of the port's position. A new metal hinge is installed on the large right hand escape hatch. This has a different bolt pattern than the later version.

For some reason, the early version of the roof vent was not provided in the MK kit. I scratch built mine from styrene and added wing nuts from my parts box.

On the real Tiger, the turret roof has small depressions along its center that contain screw heads. These were the attachment points for internal fittings. The MK part has the depressions, but to add that extra special bit of detailing, I tapped out these holes and added teeny-tiny watchmaker's screws.

Another little detail often overlooked on Tiger models is the small casting number found on the top edge of the gun mantlet. I added mine with fine copper wire. This is one of those things you can look at a hundred times and not notice. Many of the wartime shots of the Bovington Tiger illustrate this.

The rear stowage box was detailed with latch assemblies from the OTM detail sheet. These end up looking really, really neat. The way they are designed is quite clever. They are probably way out of scale, but I couldn't resist adding them.

The Devil is in the Details

I left off all the very small and intricate details until last to keep them from getting sheared off during construction.

I started off this final phase by adding the S-mine and smoke launchers. The smoke launchers are mounted on the turret, while the five S-mines are mounted at points around the upper hull. These pieces are provided in the MK update set and each is cast in white metal.

Your references will come in handy again in placing the launchers, especially those on the turret. There are no locating marks on the turret roof. On the turret set, each launcher tube is placed to form an outward fan pattern. On all my launchers, I added thin copper wire to represent the ignition leads.

Toolin' Down the Road

I utilized much of the tool gear from the OTM sheet, starting with the two tow cable mounts. Adding these first helps to gauge the positioning of all the remaining gear.

Some of the tools were additionally detailed such as the jack which had the molded on brackets removed and new grab handles added from brass wire. The fire extinguisher was replaced with slightly modified Italeri item. The wire cutters were also replaced with an Italeri part. The Tamiya wire cutters in particular were too delicate to endure the removal of their molded on brackets.

I felt the size and pattern of the shovel was

incorrect, so I scratch built a new one from styrene.

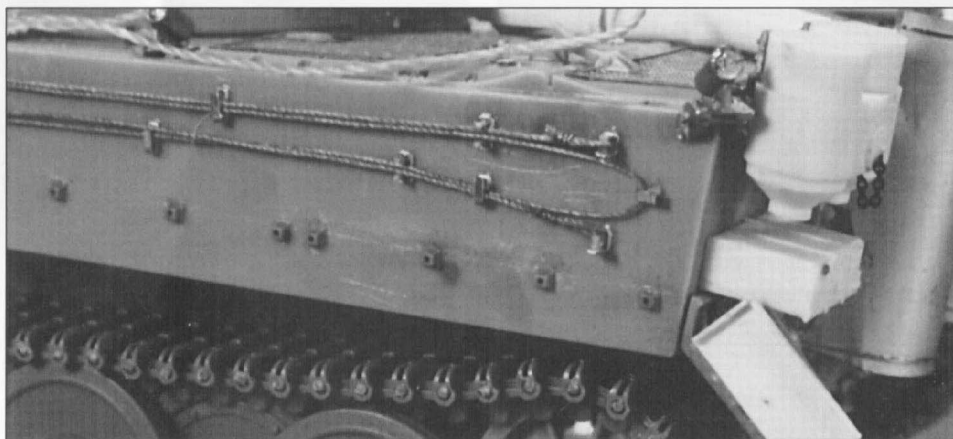
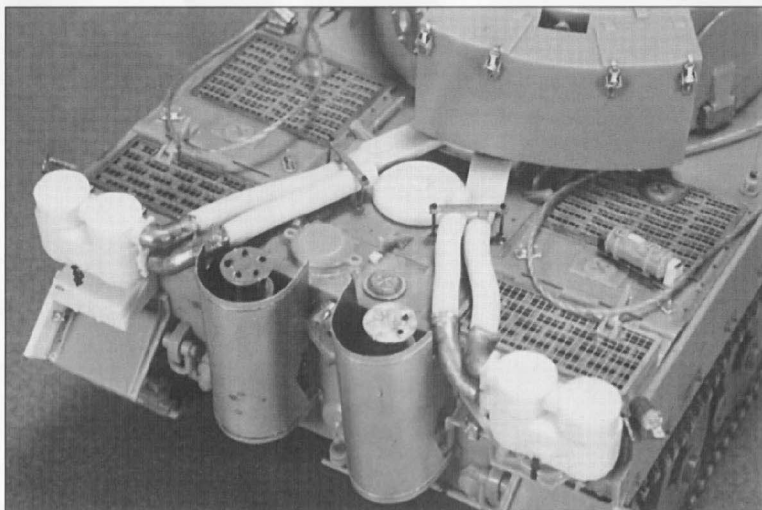
I replaced the antenna mount from one filched from a Tamiya 251 D. The mount provided in the Tiger struck me as a little small. An antenna was made from sprue.

One of the final details added to the upper hull were the Bosch lights and their wiring on the front corners of the hull. These are some of the nicest parts in the MK kit. They are cast in white metal and come complete with their weird shaped wiring connectors.

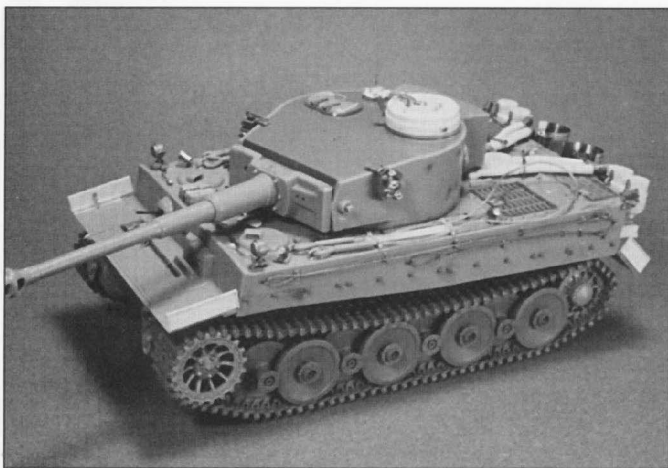
Next, the front and rear fenders were detailed with styrene sheet and the brackets from the OTM set. This was to represent the fenders folded up for travel. The narrow transport tracks, the removal of the side skirts & outer roadwheels and the flipped-up fenders all reduced the width of the Tiger for travel by rail.

Paint That Panzer

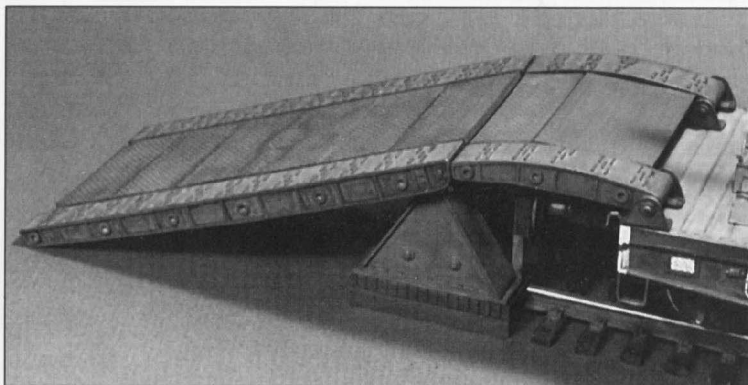
I wanted to model a very early Tiger. So I opted for one of the original vehicles from late 1942. I choose a dark gray scheme for this that I thought would help to show off all my hard work. I was inspired by a photo in the *Tigers in Combat* book by Wolfgang Schneider on page 18. This shows a



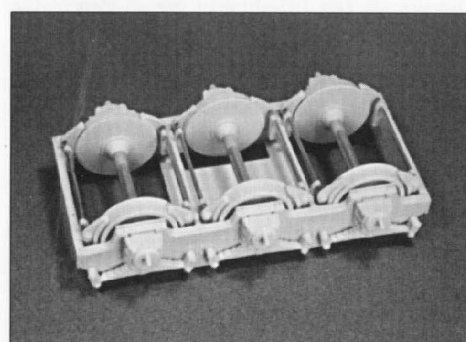
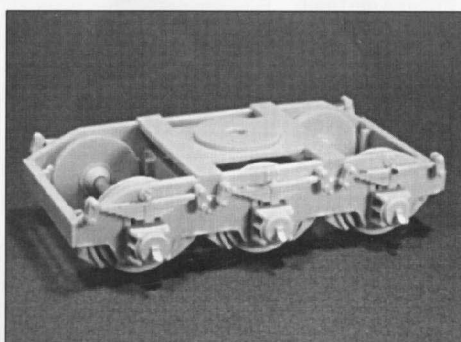
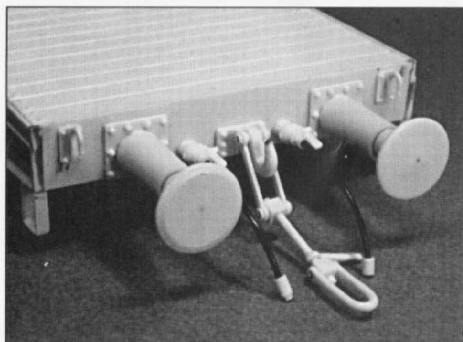
From the top: these shots all showcase the many added items. The top photo shows the hull front. Note the tool gear and the white metal headlights. In the second photo you can see the finished Fiefel system installed. The smaller inset photo is of the Fiefel air canister. I added a small chain to its cleaning port. The shot just above shows the fine wire used for the cable and also note the MK fender bolts. These were included in the wheel set.



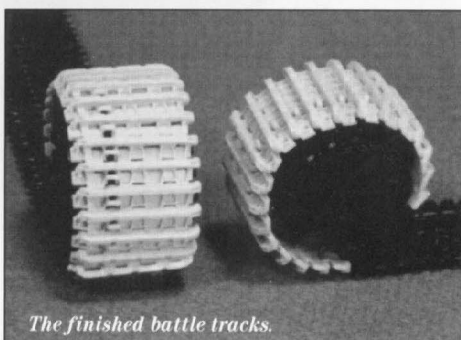
Left: the finished Tiger prior to painting. Below: the finished loading ramp pushed up to the railcar.



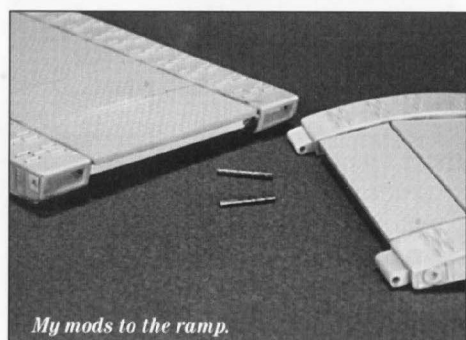
Below from left: the front of the railcar, both ends are identical; the top and bottom of the wheel trucks.



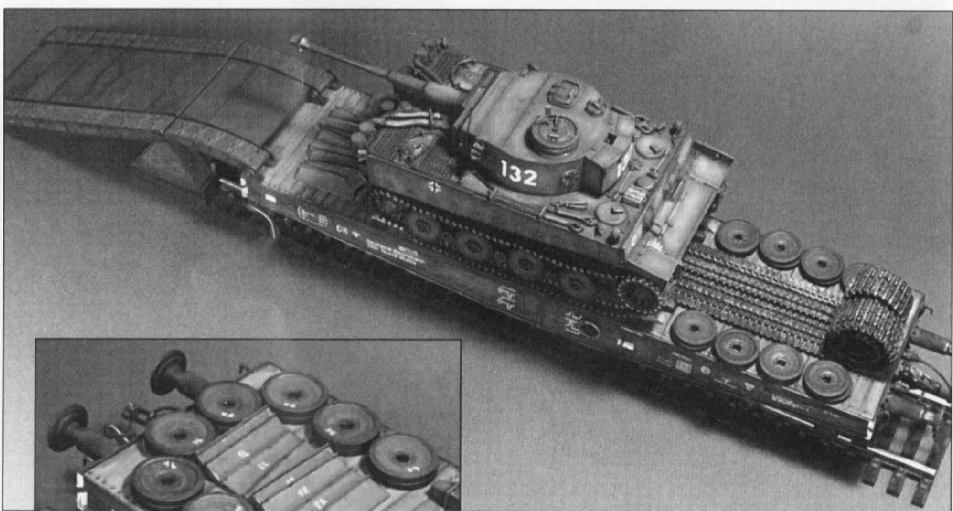
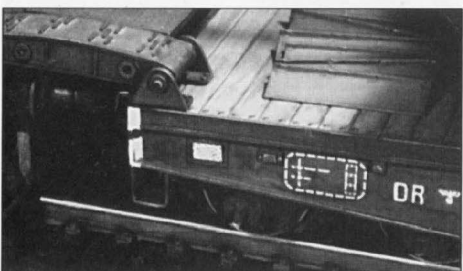
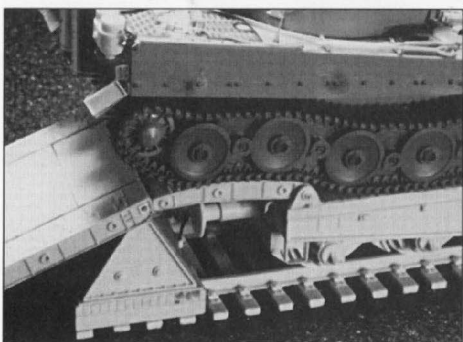
Stowage ready for stowing.



The finished battle tracks.



My mods to the ramp.



Upper left: "how it's supposed to work," the finished model taking a run up and over the ramp and railcar. Left: the paper work slot on the car. Above: the whole mess put together. The word "big" springs to mind... Inset: my final stowage option. Note the chalked-on numbers on the roadwheels.

vehicle of the Schwere Panzerabteilung 503. There is a color plate of the same scheme I chose, later in the book. The scheme depicts the vehicle as it appeared with the Army Gruppe Don in December 1942.

The photo on page 18 shows the unique unit symbol; a Tiger's head on white circle. This appears on the right front side of the hull. I hand painted the tactical numbers on both sides of the turret and on the rear stowage box, then added the divisional marking also by hand.

Rollin,' Rollin,' Rollin'—The Rail Car

After all the work on the Tiger, the rail car seemed like a vacation. The car is made by The Tank Workshop and many of you may have seen the model listed in the '95 PanzerFile under the name "Ordinance Models." It is available here in the U.S. and TTW makes a Panther Eisenbahn too.

The car is split into two identical halves. The trucks and side panels are all the same. There are two coupling assemblies and vinyl tube for the air hoses and aluminum tube for the axles.

The kit is actually pretty easy to build. It practically falls together. There was no warpage of any consequence in the parts, which is fairly impressive considering the size of many of them.

The toughest part is cleaning everything up, especially the railroad tracks. These need to have a bear of an overpour sanded off. It runs the entire length of the rails. It was worth it though, they look great. I had a look at that infamous K-5 rail gun recently and they include some sort of toy track for that thousand-dollar kit. The Tank Workshop tracks are real scale replicas. It would be interesting to see them sold as separate items.

One constriction tip on the brake shoes: I'd suggest not putting them on until the wheels are installed on the trucks. This will show you how to properly align the shoes. With the two different sizes of rod and all the leaf springs and other great details, the trucks look really terrific. It's too bad they're hidden under the car. But you can see 'em here!

The bed of the car has superb wood grain detailing. The finished sides and bed fit onto the truck with small holes that correspond the post of each track. I left the trucks off the car and the car off the rails for painting.

I couldn't resist one small extra detail. On the right rear of the rail car there's a small square. On the real thing this held the transport paper work for whatever was on the flat car. I put a small bit of fine screen into the square and inserted a little mocked-up document.

Real Reichsbahn rolling stock was black. I opted to paint mine much the same shade as the Tiger to represent a beat-up and faded looking car. The kit comes with a very complete set of markings for the car. Digging these up would have been nearly impossible. The only other option would have been hand-painting. Good going Tank Workshop.

The decals were all carrier film, so I cut them as close as possible to the image. I used white glue to set them down, but couldn't quite get the film to go away, in spite of a flat coat. To solve this, I used a new technique (to me) of lightly brushing the decal with liquid styrene glue (after the area is thoroughly dry). This worked great. Another coat of flat finished the job. One note on this. I use Floquil enamels almost exclusively, so I didn't worry too much about a light touch of the liquid glue on my model. If you use acrylics, or less sturdy enamels you should exercise more care with the method. Test it on an unseen part of your model first.

Stow It

There's quite a bit of stowage involved with the rail car. The kit provides two long beams to mount

in the center of the deck. This kept the tank from shifting from side to side. I made chocks from basswood to place under the tracks. I cut apart the fenders from the Tamiya kit and then drilled out all the mounting holes. These and my drilled out wheels were arranged behind the tank. When the wheels were taken off the Tiger for transport they were usually numbered with chalk. Each wheel wore a little differently so the crew was careful to return each one to its proper place. I hand-painted each wheel with small white numbers.

The Tiger's battle tracks were usually stowed flat under the tank with the ends rolled up or folded over to match the length of the rail car. I have also seen the tracks coiled and stood on end, but it strikes me that it was a lot easier to off-load them laid flat.

I used the battle tracks from the Tamiya kit. They are not the right pattern, being for the later tank. I had a few spares from the older ModelKasten early Tiger track set. I used just enough links for those that showed on my "track roll." This way the kit's tracks did not have to go to waste. There was a bit of method to my madness.

The Tank Workshop's Heavy loading ramp is a simple affair. It's basically composed of four ramp sections; two short and two long; the panels that mount in between and a mounting tri-pod assembly that sets underneath. Not too easy to visualize. Check out the photos.

Once again, it looks scary but it's not. Just remove the overpour and slap it together. All of the molding was crisp and clean and I really liked the big cleats that line the ramps.

In my quest to make everything work, I pinned the ramp using scrap resin stock and thick brass pins. I also pinned the feet of the ramp end. This way they'd end up nice and flat against the bed of the rail car.

Are You Done Yet?

Well that's that. Pretty cool isn't it? I enjoyed the heck out of this. It took much less time than you'd think. About fifty hours total. The Tank Workshop stuff helped by being very cooperative to build. A full rundown of all the products is listed below.

Later this year, Tamiya will release a mid-production Tiger I. This will make the trip back to the early version much easier, but you'll still need a way to backdate it to the earliest version. You'll save some by not having to buy the wheels. Of course, if you have the Tiger in your closet already, the wheels will still come in handy. Most likely they will still be cheaper than another kit.

For my next project maybe I'll do an entire platoon of Tiger I's along with all their rail transport and support vehicles—the finished project should be around eight feet long... or maybe not! ☹️

—Scot Bradley

MMiR RECCE

Tamiya Tiger I. Kit number 35146. Suggested retail, \$25.50.

ModelKasten Tiger I early conversion kit. Kit number C-1. Suggested retail, \$64.95.

As I mentioned this kit was purchased in France where it's sold for 199ff or about \$40.00 plus tax. This lower price was due to many locally made parts. The current U.S. retail is listed above. Many of the MK products are now starting to become more available in the U.S. Check of the RZM ad on page 15.

ModelKasten Tiger I early roadwheels. Kit number W-1. Suggested retail, \$29.95.

ModelKasten Tiger I transport tracks. Kit number SK-3. Suggested retail, \$43.95.

On the Mark Models Tiger I photo-etch brass set. Kit number TMP-3526. Suggested retail \$23.00.

This is quite a product. More of a detailing kit than a brass sheet, it includes three sheets of photo-etched material (two brass sheets, one nickel sheet), strip plastic and Grandt Line rivets. It's too bad that most of the sheet is devoted to the very early Tamiya kit. Quite a bit of it works on the later model and you'll find that many of the leftover parts make great additions to your parts box. The fans, heat shields and the tool equipment all make it well worth the price. OTM products can be found at a few specialty shops or ordered directly from On The Mark Models, PO Box 663 Louisville, CO 80027. (303) 665-9424

The Tank Workshop Tiger "Eisenbahn" Rail car. Suggested retail, \$90.00.

The Tank Workshop Heavy Rail Loading Ramp. Suggested retail, \$35.00.

There's a full rundown of all the current stuff from TTW in the Short Takes section. Larry Provo of TTW was kind enough to donate all the products for this project except the backdate set and the OTM brass. Thank you Larry! For more information on any of the TTW products contact: The Tank Workshop at 6102 West Solano Drive S., Glendale, AZ 85301. (602) 934-3687.

References

There a whole slew of stuff of there on the Tiger. Here are the ones I prefer:

Tigers In Combat I by Wolfgang Schneider J.J. Fedorowicz Publishing Inc. 1995. Not the cheapest (\$95.00) but it's a special book for German armor buffs. It's probably the only book I can think of that has Tiger railcar photos in any quantity. Worth going without lunch for.

Tiger in Action, Squadron/Signal Armor Number 8. Squadron/Signal Publications. 1974.

Tiger in Action, Squadron/Signal Armor Number 27. Squadron/Signal Publications. 1989.

Both the old and the new book have good coverage of the early Tiger. I list the first only because some of the original shots never made it to the second book. Look for the older one at swap meets or club functions.

Tiger I, special edition by Uwe Feist and Bruce Culver. Ryton Publications. 1993. The big book on the Tiger I. Until *Tiger in Combat*, it was the biggest book on the Tiger. Tons of photos of all the variants. Especially great factory shots. You can't call yourself a true Tiger freak without this book. Big bucks though, \$88.00 retail.

Tiger and Sturmtiger in Detail by Uwe Feist and Bruce Culver. Ryton Publications. 1994. I almost like this more than it's companion volume. The book opens with great shots of an early Tiger in Tunisia—nearly worth the price right there. Nearly. About \$50.00 wherever Ryton books are sold.

Sherman; With Bite



DML Tackles the British 17 pdr. armed Sherman

With their own Challenger program staggering, the British decided to equip some Shermans with the 17pdr gun, notwithstanding the shortcomings of the conversion. These included the loss of the hull machine gun, as the space needed by the gunner was required for ammo storage; and the crowded turret, necessitating movement of the radio into an armored bustle at the back of the turret. The result, though, was the best Sherman of the war, able to take on any German vehicle at comparable ranges. Sure, it wasn't as well armored, but it was definitely as well armed!

The Kit

Another in the prolific Hong Kong company's "39-45 Series," this kit has a completely new hull, in contrast to their earlier releases of HVSS vehicles. They didn't have much choice here, as the model is of the 'long' hull M4A4 variant, which used the Chrysler A57 multi-bank, a 30 cylinder engine made from putting five 6-cylinder truck engines on a common crankcase. The U.S. Army would have nothing to do with the complex engine (except for training), but the British were glad to get them.

The bogies included in the kit are the Italeri ones, the complete sprue being provided. Once again, DML is good for your parts box; you get a bunch of extra stuff, including a complete set of road wheels. These bogies are my favorite Sherman ones, giving you the option (which I never use) of posing the vehicle on uneven terrain, as the bogies

are articulated. Other than this, I could find nothing else in common with Italeri Shermans.

Like the other DML offerings, this one is multimedia, containing a nice photo-etched fret. You won't have to buy an aftermarket set to get the headlight and taillight guards, and also you get a set of really nice grills for the air intakes on the rear of the sponsons.

Also included is a set of separate link tracks. I'm gonna go on a little rant here. I like separate link tracks—when they are necessary, specifically when there is droop in the tracks. Photos of Shermans with drooping tracks are slim and none. Along with not being needed in this case, these things are incredibly fiddly, time consuming, and aggravating to those with normal sized hands. And when you get 'em done, they don't look a bit better than Tamiya or Italeri 'regular' ones. Only the extra length of the aft hull made me use them. An option here would be one of Accurate Armour's "Trax-Pax;" there are enough shoes included for the longer hull, and you get your choice of any of the Sherman track variants. A lot of Firefly photos show the three bar cleat track.

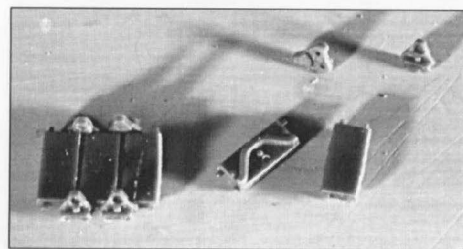
The upper hull is similar in appearance to the late-lamented MP Models M4A4. I thought maybe DML had picked up the molds, but this is definitely not the MP kit. The engine deck is separate, though, so I'd say there are more Shermans on the way.

Construction: Legs and Feet

I started with the lower hull and suspension. Nothing out of the ordinary here; everything went

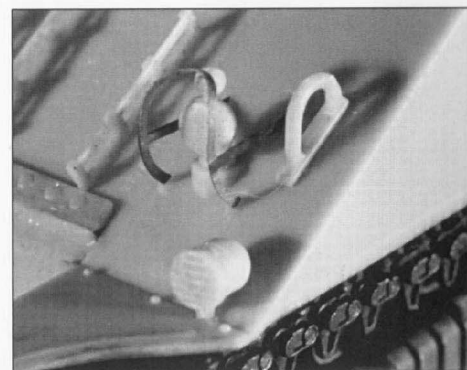
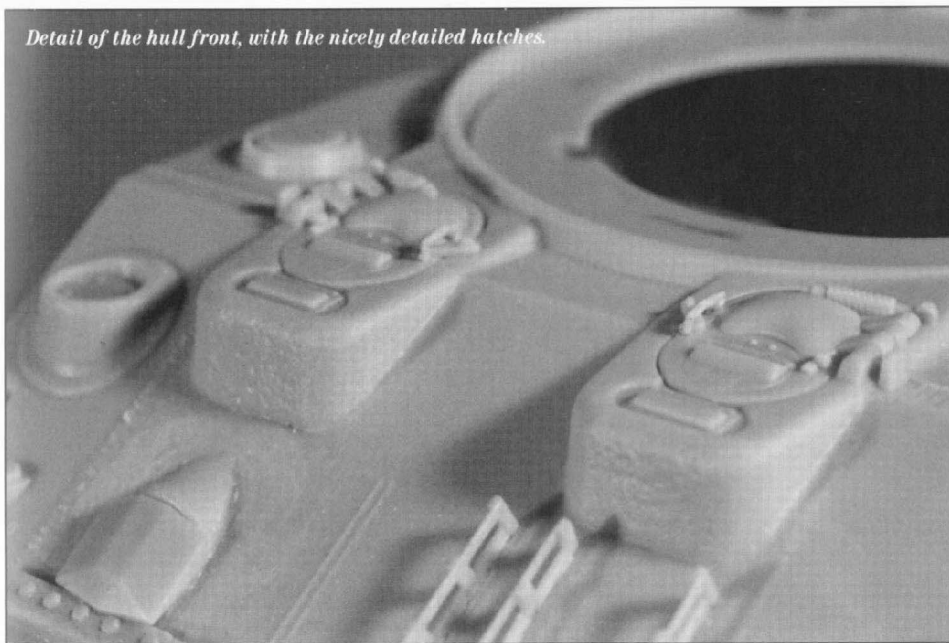
together with normal cleanup. DML would have you add the nose (parts C6, C8&9, C2&3) after you put on the upper hull. Since I didn't want to rattle the tracks on with a bunch of stuff in the way, I went ahead and built the whole lower hull after dryfitting to see if this would present any problems.

As I said above, the suspension parts are the excellent Italeri ones, and went together with no difficulty. Make sure you get a good glue joint on the drive sprockets; the track is a little tight, and you could have trouble with it splitting the sprockets. It is easier to fit the track if you lock the front and rear bogies in the flat position by gluing the pivot pin. The track installation is difficult enough without having to keep the bogies from trying to get away the whole time.

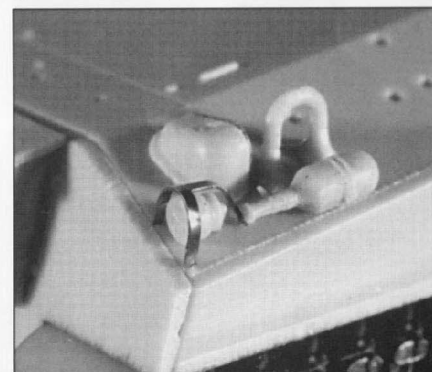


Those pesky track blocks. Small bits at the top are the end connectors. And be careful with these things; you can't tell from the backside where you're working which is the front. It'd be embarrassing as hell to get all the way through with the tracks and find one shoe going the wrong way.

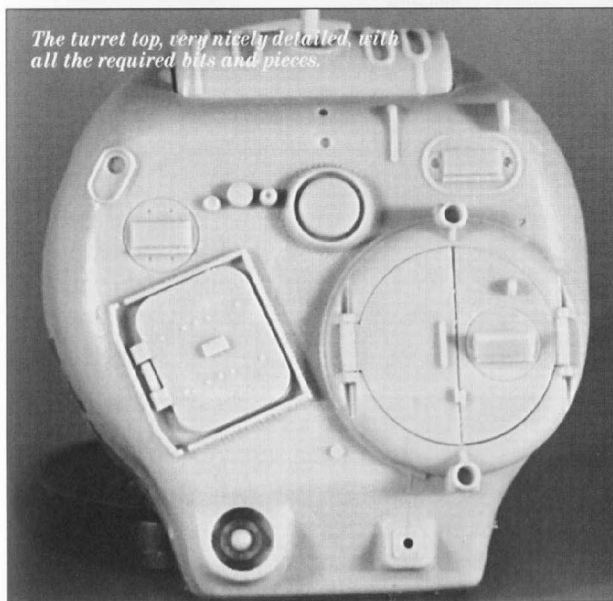
Detail of the hull front, with the nicely detailed hatches.



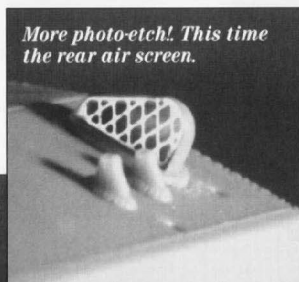
Above and below: DML provides photo-etched light guards in the kit; a unique addition.



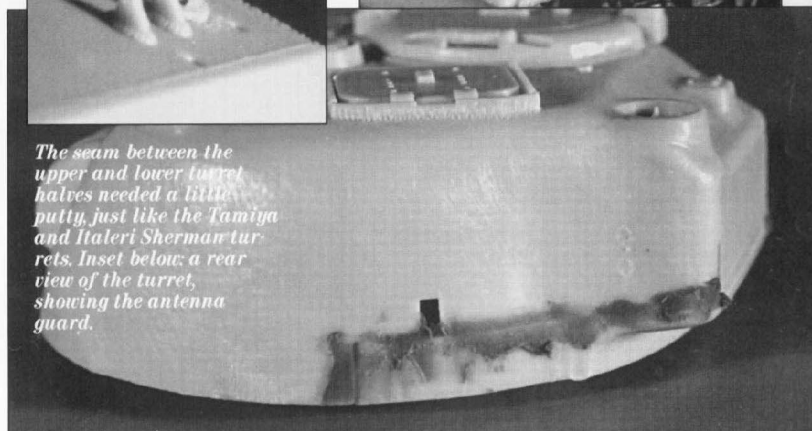
The turret top, very nicely detailed, with all the required bits and pieces.



More photo-etch! This time the rear air screen.



The seam between the upper and lower turret halves needed a little putty, just like the Tamiya and Italeri Sherman turrets. Inset below: a rear view of the turret, showing the antenna guard.



Now as for those tracks: I started out trying to clean up each bit, that is, removing the knockout marks on the end connectors and the track blocks. This resulted in a time of about 15-20 minutes for each track block. Since 1) I was working on a deadline; and 2) I wanted to build more than just this model this year, this method rapidly went by the board. I decided to hell with the knockout marks on the end connectors unless they were sticking out. The one on the track block was very difficult to clean up, so to hell with that one, too. After this breakthrough, I got the time down to about twenty track blocks an hour. Since the vehicle takes 80+ shoes per side, that gives you a good ten hours or so of nothing but boring, mindless drudgery. I found it was a great time to think up snappy comebacks to some of the jerks at work, compose insulting letters to large environmentally insensitive corporations, imagine what I'd do if I won the lottery, etc.

I used tube glue to put the tracks together (eek! tube glue!), and found that this gave me a good bit of flexibility even after the tracks were completely dry. I built a run of 62 shoes, which was long enough to go along the top run and around the idler and

drive sprocket and to the first wheel of the front and rear bogies. A run of twenty shoes then filled the bottom opening, with one shoe left to add if the kit took the 'real' number of eighty-three shoes per side. One side did and looked good. The other side had the nightmare of separate link tracks, that is, a space too big for one shoe and too small for two. Trying to 'stretch' this track doesn't work; you'll break off the fine pins holding the end connectors. I put two shoes on, but it didn't look too hot. A spot of gel super glue on the return rollers held the track in place, and a spot on the affected road wheels finished the job.

An Upper Body Workout

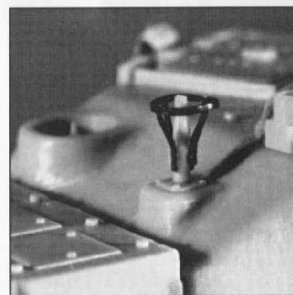
One thing I didn't like about the upper hull was having remove the weld seam around the hull machine gun mount. The front of the hull is very nicely textured, and it's obvious you're going to lose some of this when you scrape that seam away. After I'd gone to the trouble to do it, I found a photo in the Hunnicutt book of a late production M4A4 with the seam on it. If I had this to do over, I'd just leave the seam.

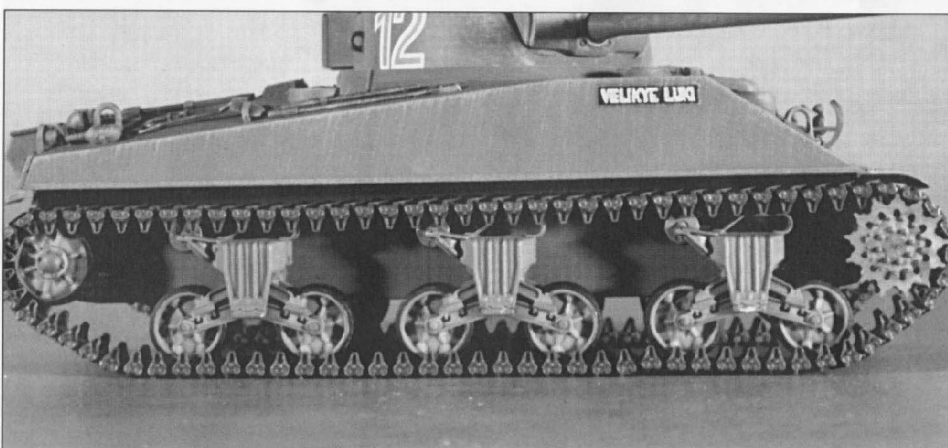
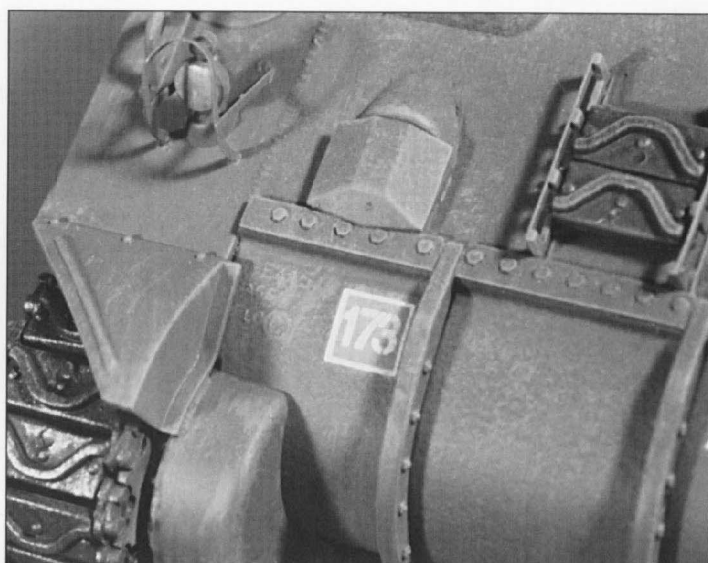
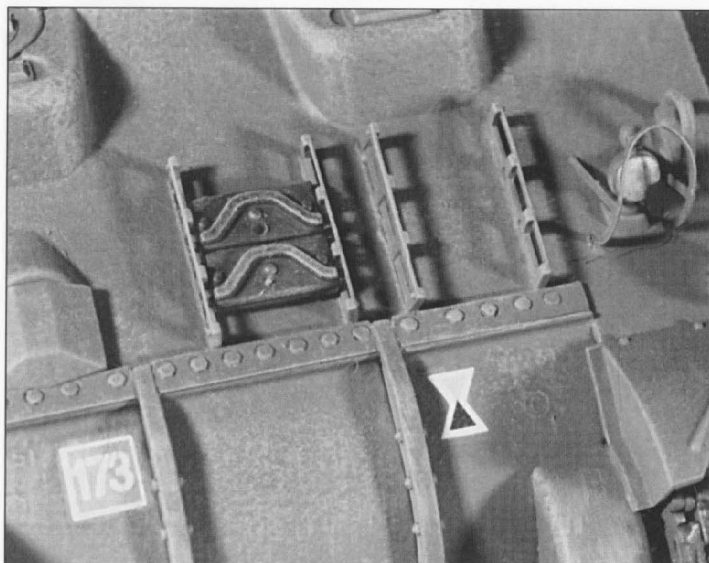
The fit between the upper and lower hulls was

excellent, as was the fit of the engine deck and rear hull plate. The cooling system bulge on the back deck is very nicely done; so was the grillwork just forward of it.

After the hull is mated, all that's left is stowage and lights/guards. The photo-etched stuff is very nice, but very tough. It needs to be annealed, or heated until it changes color, before use. I found one or two kitchen matches did the trick; just don't forget to clean off the soot! A nice touch here are the 1/1 diagrams provided in the plans.

The spare track stowage on the glacis is a bit tricky. The racks (parts C25 & 26) have to be flexible to get the track blocks in. I found this out the hard way, by gluing the outboard set on and letting them dry. Do this, and there's no way to get the



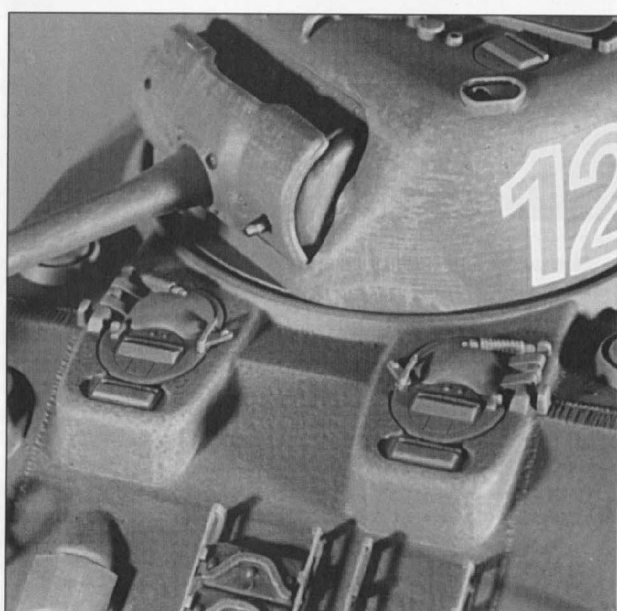
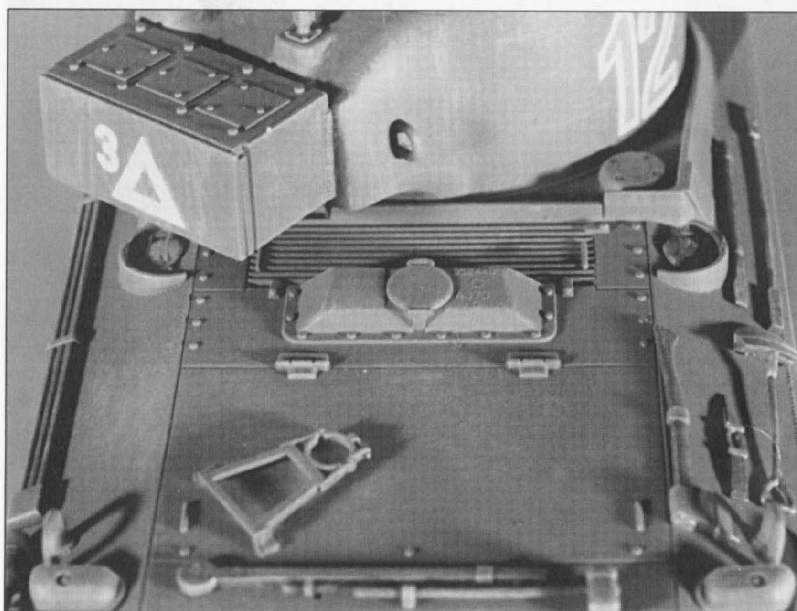


Above left and right: hull front with track racks in place with track blocks. Note the really nicely cast molding numbers on the transmission housing.

Left: it's a long drink of water! Right side of the finished vehicle. This unit (Northamptonshire Yeomanry) used Russian city names for their vehicles.

Below left: close-up of the completed engine deck. Note that between the track wrench and the sledgehammer at the bottom of the photo, an extra tool (a pry bar) has been added to cover two extra mounting holes. The bulge on the engine deck shows on the right the beautifully cast molding numbers.

Below right: the finished hull front. Check out all that nice looking casting and weld detail.



blocks in short of breaking one rack free. The way to do this is to glue and let dry one side or the other. Then glue on the other side, and while the glue is still wet, 'spring' the rack, insert the blocks, and straighten the rack up. And that is why I only have tracks on the center racks.

As an alternative, many Firefly photos show the large stowage box (parts A15 & 14) mounted on the glacis. Since the hull machine gun was not fit-

ted, this was a logical move, and freed up the area at the rear for more stowage.

The tools were well cast as far as appearance and scale thickness, but many were marred by knockout marks on the visible side. I know they have to be there, but why not put them on the side that goes against the hull? By the way, the plans would have you put on all the stowage before joining the two hull halves. If you do this, knocking off

some of it will be unavoidable; you'd also have to paint the upper hull before assembly.

The mounting holes for the air intakes on the back deck (parts C12 & 15) are a little too far apart. No matter how you place the parts, some of the hole is going to show on one side or the other. It takes only a bit of putty to fix it though. In the same area, there are a couple of extra mounting holes not mentioned in the plans between the track wrench and

sledgehammer (parts A19 & 25). Dry fit and fill the extras, or do like I did, and add some extra stowage to cover the holes.

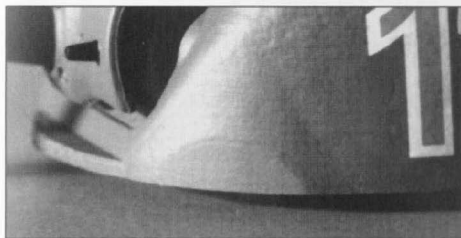
The Turret

DML has done a fine job on this turret. A little putty was needed where the upper and lower halves join, just like the Tamiya and Italeri Sherman turrets. I also used a bit of putty at the pistol port and the bustle, to blend the weld seams into the turret sides. One molding oddity surfaced after the paint job; on the left lower front of the turret is a flat spot. This should be removed prior to assembly. A session with Mr. Sandpaper will fix it in no time.

This turret is quite accurate, by my standards, anyway. It has the square loader's hatch correctly done; the stop or rest for this hatch, done in plastic (part B19) and photo-etch (part MA4) is really nice. You'll notice that the mantlet is offset to the left just a bit. Don't "fix" this by centering it! Firefly mantlets are supposed to be like this (see January AFV News for a full discussion on this). Also in photo-etched is the antenna guard. It's a bit fiddly; I prefer Accurate Armour's treatment of these guards.

Paint and Markings

The vehicle is marked as a tank of the Northamptonshire Yeomanry, France 1944. A color print of this tank appears in Zaloga's *D-Day Tank Warfare*, and it looks like OD to me. The plans would have you mix green and OD; I just painted it




Here between the "12" and the gun mantlet is the curious flat spot on the turret. I didn't notice this until after the paint and markings; but now you've been warned, so you can avoid this.

OD. This is the tank, by the way, that knocked out Michael Wittman's Tiger at St. Aignan (depending on which version of this event you want to believe—some say it was knocked out by British fighters).

After spraying the kit Pactra OD, I applied the kit decals. They are great, snugging right down to the finish with MicroSol.

An overspray with Pactra clear flat just about completely removed the decal lines, even on the turret, where the big "12" looked like an ideal candidate for silvering. The tools were painted separately; if you don't feel like it, just glue 'em on and paint the whole thing, as this was common practice. Drybrushing brought out the surface texture and details; a black wash replicated the fuel spills, and brought out the recessed details.

I Break for Tea

This is an excellent kit, and provides no significant difficulties in construction. It measures right on the money in every dimension according to the data in Hunnicutt. There are probably a few small bits here and there that could be tweaked by the super-detail crowd, like the commander's sight vane and the locking pins on the fuel caps. My only real gripe here is the tracks, where I think these guys may have gone a little too far in providing all that well intentioned, but superfluous detail. Remember, Accurate Armour has the fix for it! 

—Joe Morgan



DML's M4A4 followed closely on the tracks of their Firefly. Many of the sprues provided are the same with some changes for the turret and main armament. Some of the minor flaws on the Firefly carry over to the M4A4 but they are easily corrected. A new and smaller photo-etched sheet is provided along with a few extra plastic parts for your spares box. The kit provides you with a few optional parts such as add-on or appliqué armor and the choice of either the M34 or M34A1 gun mantlets. A new decal sheet with markings for a Chinese, Polish, British or French vehicle is included. Light guards are of plastic instead of the metal photo-etched type that comes with the Firefly. Somewhat perplexing.

As in the Firefly kit, the bogies are from Italeri Sherman and new pressed type wheels are given. These have detail on one side only. To solve this you can fill the empty cavity with epoxy putty and stamp new ribs on with a female casting also made of epoxy putty. This doesn't give a perfect impression, but it's adequate for the back side of the wheels since they are barely visible.

In this kit all the exhaust detail was hidden with an odd deflector panel so the two commonly seen exhaust pipes and mesh are absent. Two plates can be shaped from styrene and added between the rear idlers and the deflector to correct this. A few plastic angles and bolt heads also need to be added to the lower hull for accurate detail.

I added locks to the armored filler covers, none are present. This detail has yet to appear in a Sherman kit. The armored plates attached to the bullet splash rail are molded on, but they should be sanded off and new plates added. There are two notches missing from the lower ends of the driver's and co-driver's hatches and also a large weld bead that runs between them. The notches can be carved or filed in or just as easily hidden by the optional armor provided. A new plate needs to be formed to fit over the hull machine gun and the rail for the weather cover added. Marks for positioning the spare tracks are still visible on the hull front and these should be sanded off for the M4A4.

The location of the add-on armor for the starboard sponson differs from most references so I moved it slightly forward. The dimensions given for the placement of the armor appear to be for an M4 and not an M4A4 vehicle. Front fender supports are missing but they can be easily added from styrene strip.

If the M34 gun is selected, the kit provides the gun shield, a narrow rotor shield and a nice 30-caliber MG shield. The bomb thrower or smoke mortar on the turret needs to be moved closer to the turret edge and the forward lifting ring shifted closer to the mantlet. There is a strange bulge on the lower port side and it should be sanded down. I added tie-downs to the port and rear of the turret. The turret add-on armor is missing the prominent weld bead and its edges need to be beveled. The ghost outline for the extra hatch on the Firefly is still visible and this should be removed. The travel lock is located too low and needs to be moved up between the crew hatches on the hull.

Methyl bromide fire extinguishers are provided but no rear turret bin or first-aid box as was commonly seen on Commonwealth Shermans. There are no tow cables or periscope guards and there are a few holes and ejector marks that need to be filled.

During construction I mostly referred to the Hunnicutt volume on the Sherman. I was fortunate to have a copy of the M4A4 Tech manual on the M4A4 (#9-754), which was very helpful as were photos I took at the U.S. Army Ordinance Museum in Aberdeen, Maryland.

The DML kit of the M4A4 is a welcome addition to any Sherman buff and its minor errors and omissions are easily corrected to portray an accurate M4A4. Its appearance gives us a wealth of parts and increases the many different Sherman models that can be built. Conversions can be easily made for recovery vehicles, crabs, duplex drives and others.

—Carlos D'Arcy

MMiR RECCE

DML Sherman Vc "Firefly." Kit number 6031. Kit graciously provided by Dragon Models, Ltd. Suggested retail \$31.50. **DML M4A4 Sherman.** Kit number 6035. Suggested retail \$32.98.

References

Hunnicutt, R.P., Sherman, *A History of the American Medium Tank*, Presidio, Novato, CA, 1978.
Sandars, John, *The Sherman Tank in British Service 1942-45*, Osprey Vanguard, London, 1982.
Zaloga, Steven, and Ballot, George, *D-Day Tank Warfare*, Concord, Hong Kong, 1994.

Panzer Parity

DML gives us
a new look at
an old friend



A s a fellow modeler put it to me "We have never had it so good" I have to agree. A really good Panzer III has been neglected for some time. Our only alternative has been the hi-tech, but pricey Gunze Sangyo offering or the outdated Tamiya Panzer III Ausf. M-N. But what is this, gentle reader? It's our old friend; the Gunze Sangyo kit. But this time it's Gunze via DML ala Imperial Series. Basically this means the old expensive high-tech kit minus the white metal and photo-etch parts. What we have here is an excellent model for a fair price and the central concept of the Imperial Series: "Our Stuff Plus Someone Else's Stuff."

In real and actual life, the Panzer III Ausf. J marked the final basic variant in regards to automotive standardization. The Ausf. J featured 50mm armor front and rear, wider 40cm tracks, revised sprockets and idler wheels. The lower side plates were lengthened to form a tow hook attach point. The J also featured a revised driver's vision port, ball mounted MG and revised armored air-intakes. The main armament for the Ausf. J. was the 50mm L/42 Gun. The longer 50mm L/60 Gun was standardized into production in December of 1941. The kit offers both barrels, I decided to build mine with the L/60. Bigger is better (or so they say).

Gentlemen, Start Your Maybachs

Let's start with the box. It seems the people at DML have come up with a clever idea. They've taken a picture of the finished kit and imposed it on a pretty cool looking painting. I'm sold.

There are thirteen sprue sets in this kit, molded in the traditional DML gray plastic. Oddly enough, only three of them are tracks. As I had stated earlier there were no photo-etched parts as there were in the earlier StuG III kits. This is my only complaint, but don't let this stop you. You can build this "stock" and have a really nice model, or for you more adventurous types out there, it's wide open for detailing. For the purposes of this build up, I did mine straight from the box and I must say I had a hard time restraining myself. I did deviate somewhat in regards to the tracks, but more on that later in the show.

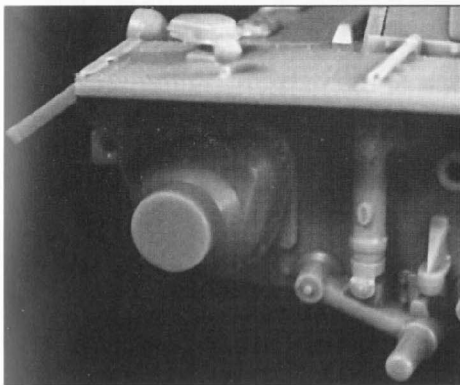
The kit scales out very accurately to my references with the exception of the gun barrel. There is a slight discrepancy I would like to open for debate. It seems between the Spielberger book, The Squadron-Signal book, and Achtung Panzer No. 2, that they all scale differently in regards to the L/60 Gun barrel. The Achtung Panzer drawing being the longest. To me it seems a little short, maybe 1.5mm to 2.0mm and it is a little thin. I guess my real question is who's drawing is correct?

Another interesting thing to note is some of the extra pieces included in the kit. There is the complete set of suspension components and return rollers from the earlier StuG. III kits. You'll only need the drive sprocket and idler wheel here, so there's stuff for your parts box (in the Gunze kit, they were metal). The thing that sparks my curiosity is the inclusion of an early MG mount and spaced armor for the front glacis plate. There are also early type head lights and a few other tid bits in the form of extra turret side hatches and armored vision port covers. Could we be seeing the beginning of a whole new family of Mark IIIs? One can only hope. [DML has already announced the N/M in the series—Ed]

The Production Line

I started with the running gear—the traditional first move in most armor kits and no real problems here. There are some nasty little nubs in between the spokes of the idler wheels, so take your time here, they are quite delicate. Also dry fit the sprocket halves because the locating points are very delicate. The road wheels and return rollers are very nice and there is little clean up. These are another of the original Gunze parts and they are some of the best fitting you'll find.

The lower hull is one piece with the suspension arms already molded in place. Old Gunze again



The curious "bald" sprocket mount from the old Gunze kit. Whatever works!

here. I don't care for this at all. I loved the DML hull and separate torsion arms on the earlier kits. I'll live through it.

At this point you add the final drive housings and idler wheel take-ups. Shocks and their mountings and escape hatches finish this step off. Everything falls together real nice. I usually leave the wheels off until after the painting and weathering process.

A little diagram is shot to the side giving you dimensional locations for parts H-11, headlights, F-27, driver's shot guard and E-35, turret splash guard. There are no locating points provided, only dimensions.

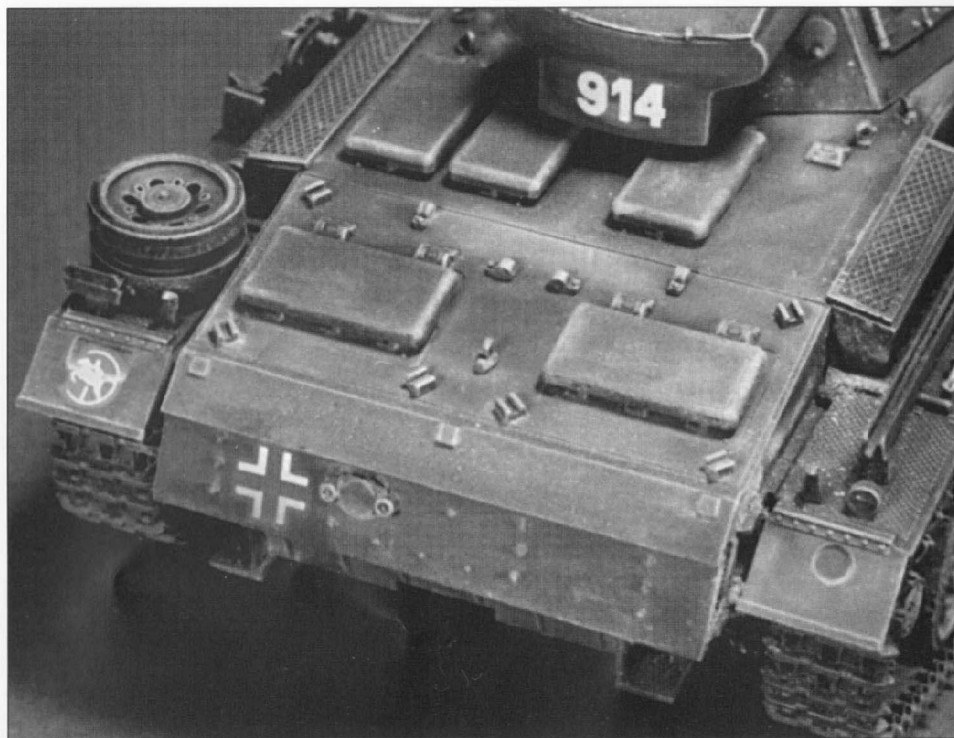
On parts H-11 and F-27, I just eyeballed them. For part E-35 you must drill three holes in the hull roof. This isn't too hard, just find the center of the vehicle by scaling the width and dividing by two. Once you have a line, lay in the dimensions, prick punch the centers and drill. What is that dimension, you ask? I need to leave some fun for you—just be sure you have a metric scale on hand!

They give you another diagram to locate parts B-20, F-4, F-18 and F-24 (more tool bits). The original Gunze metal tools just sat on locating squares, but since we're now working with the DML tools (same as all the StuGs and nicer in my opinion), DML says drill! I took a little short cut here also. I cut off the pins and once again eyeballed them. On my example part B-30, the air intake covers, did not fit just right. This was a photo-etched part in both the older kit and the StuGs. Curious that it's not one here. I would suggest pillaging a Gunze kit or getting an aftermarket set.

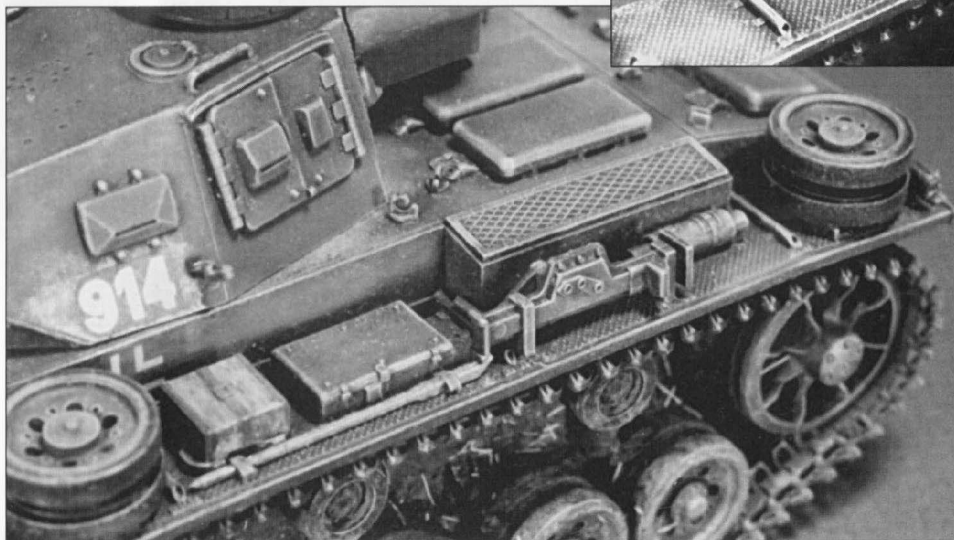
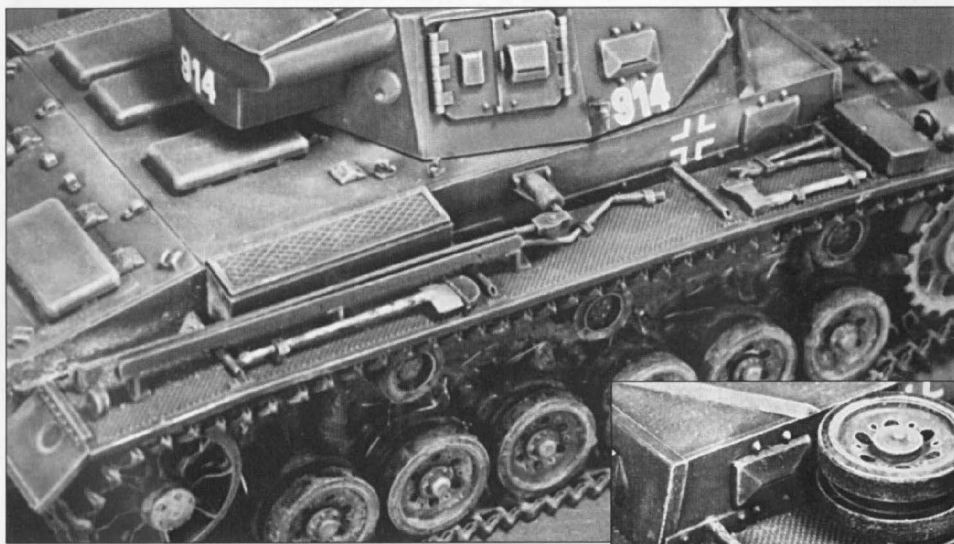
The real fender attachment brackets were made of tubing, so they are hollow. The kit parts are solid so I drilled out the ends to represent tubing. Some photos show these capped, but I took a little artistic license. The ends are beveled so be careful. You might want to try replacing them with hollow brass tube. It would be a real easy, yet effective operation.

I also added a thin piece of plastic rod to simulate an antenna. You can position this in an up or down position. Also take care in positioning the jack. The instructions are a little vague so I referred to my *Achtung Panzer* Book. On the real thing the handle rests on top of the fender and is held in place with a clip. Not supplied. Be careful, the handle comes real close to the left side air intake.

I finished the lower hull by adding rear tow brackets and mufflers. There are two outlines for placing the muffler assemblies. I glued my mufflers to the outline, but when I went to mount the heat shield I had a fit problem. So I moved the mufflers up and in board a little, dry fitting the heat shield as I went. Once I was satisfied with the fit, I



Above: the back end. Very complete as is, but a tow cable would dress it up. Below, top and bottom: views of the right and left side tool suites. It's all DML here, replacing the Gunze white metal items. Inset: my drill job on the fender support brackets.



super glued the heat shield in place. Also, the tow hooks are a little touchy, so you will probably have to play with them a little.

At this point I deviated from the instructions a bit. I was blessed with a set of the new ModelKasten link-to-link tracks for the Panzer III. These are of the mid-production type with the hollow guide horns. I'll get to those tracks later, first let's finish that hull.

I married my upper and lower hull less the wheels and sprockets. The fit of the two assemblies is perfect. No filling is required. I would suggest building per instructions. Mount the tracks, then join the upper and lower hulls. You will have no problem joining them after painting.

At this point I decided that I did not like the vehicle width lights (parts H-6). I'm not one to paint headlights so I figured M.V. lense time (check the Model Railroad section of your hobby shop—armor geeks in this section always makes the train guys nervous). I ever so carefully drilled them out to accept M.V. lense # LS-222. You'll need two.

Turret Liebe

The turret is the original Gunze item and this was perhaps its best feature. Gunze was the first company to finish a German armor model with all the turret roof screws in place. These held all manner of gear to the inside of the roof and their counter sunk heads were clearly visible. Adding these to your Tamiya Panzer III would have gotten you an award in the '70's.

The part is split into upper and lower halves and goes together without any problems. My example was cracked in the front so I had to do a little bit of a fill job. Considering that the kit came all the way from China in a small box, I figured I was lucky!

The commander's cupola was on the plain side. Not very crisp detail or much of it. I might not have noticed it on another kit, but in comparison to the high detailed turret it sticks out just a little. The hatches can be positioned open or closed. There is some detail on the inside with some small sink marks.

The turret side hatches are a one piece affair. I would have liked to see these separate, so if you wish to show them open you will have to cut them in two, or you can filch a set from the Italeri Panzer IV. Also be careful with part H-19, the rain guard, it is a very delicate piece.

As I mentioned earlier, the L/60 Gun appeared a little short and thin. All I did was glue the barrel halves together and brush on some thick super glue. Once it dried, I sanded it smooth. This seemed to do the trick. A small seam needed to be filled between parts E-9 and E-19, the gun's base. Everything else went together without any difficulty. I drilled out the MG barrels before mounting.

Those Ever Lovin' Tracks

The tracks contained in this kit are identical to those provided in all the StuG kits by DML. These represent the 40cm tracks well and generally I have no complaints about them. Because these tracks have already, in sense, been reviewed in earlier articles on the StuGs it gave me the opportunity to try the neat little MK buggers.

These are the newest additions to ModelKasten's line of fully articulated track sets. Official nomenclature: PzIII/IV Mid. Model Type A replacement tracks, (SK-18).

In my opinion, these are by far the finest examples of model engineering and injection molding that I have ever laid my hands on. These are virtually real tracks, link-to-link, just like the actual thing. This set is a model all in itself.

The magic number is 95 links per side. They give you enough links, connecting pins and yes, hollow guide horns, to make two runs of 99 links, which would fit the Tamiya, Italeri, or DML Mark IV's and of course all the Panzer III based vehicles from DML. There are also some extra goodies in the form of caps for Tamiya's Ausf. J. road wheels (these allow them to remain movable) and a gorgeous little replacement idler wheel and mount for that same kit that really works.

The assembly is pretty easy. They give you a little jig that allows you to assemble eight links at a time. If you have sharp nippers and cut close to the sprue, you will have little or no clean up on the links. Once you've laid out your eight links, you glue in guide pins from both sides. There are a total of fourteen per set. The pins and guide horns are molded on a long sprue, so they act like tweezers. Just glue them in place, and cut them off when dry. When you've finished the set it looks like a porcupine with all the sprues still attached to the pins. I used Zap-A-Gap super glue and found it was easier to build as many of them as I could and let them dry. Then I cut all of the sprues off at once. Make sure that your pins are engaged, if you miss, that pin is not coming back out. Each run took me about 3 1/2 hours. A real labor of love. When complete, these become a true track system. They can take being handled, but be careful.

All I can say is do give them a try. For those of you, who like me are on a limited budget, the kit tracks will work just fine. But it's nice to splurge now and again.

The Painting of a Panzer

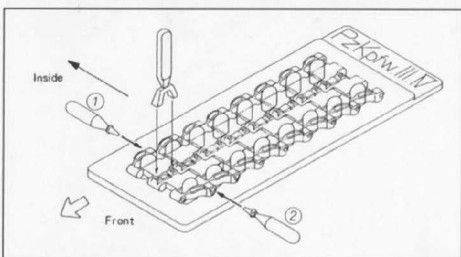
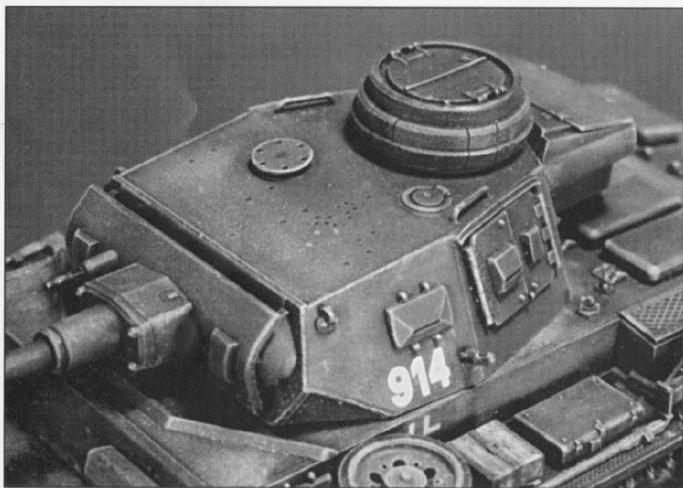
I decided to paint the vehicle basic Panzer Gray. One of my favorite colors to go with my favorite task. I airbrushed the tank Tamiya XF-63 German Gray. I personally prefer to shoot acrylics because of fumes (or lack thereof) and the ease of clean up. The wheels were left off the vehicle and were sprayed Tamiya XF-1 Flat Black. Once dry, I took a circle template (find this a drafting supply store) and found the hole that covered the outside rubber portion of the wheel. I masked off the rest of the template and shot the inner wheels Panzer Gray. I have found this to be the quickest and neatest way to paint road wheels. Works with all types too.

After allowing the base coat to dry for 24 hours, it is time for the wash. For this I used oil paints. It amazes me how many people are intimidated by oils. Believe me, they are just another medium and you can't argue with the results. Besides, a tube of any color will last most people a lifetime. Once you get a feel of them, you will probably find many useful modeling applications for them. For those of you who do not yet use oils, I do suggest giving them a try. You will be very pleased.

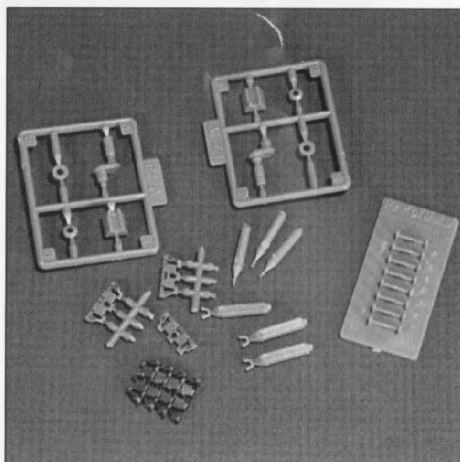
For this wash I used a squeeze of Windsor Newton Black and Raw Umber. I placed the paint in a small cup and mixed in some thinner. There is no real science here, just stir until you get a very thin filmy, dark mixture. I took an old brush and gobbled it on, making sure I got into all the nooks and crannies. When this step is completed, you get a dark film over the entire vehicle. I let it dry overnight.

For the dry brushing process, I started with Humbrol Matt #67 Tank Gray lightened with Windsor Newton Titanium White. Another nice thing about oils is that they mix with Humbrol real well. After dry brushing the entire model with shades of this mixture I dry brushed with various Humbrol matt enamels.

The details were then painted. Matt #13 Rust was applied to the mufflers and the heat shield. All wood details were painted with Testors Acrylic Wood, once they dried, they were washed with Windsor Newton Van Dyke Brown. If done right, this will give a realistic wood look. All metal tools and machine guns were painted with a metal mixture of Silver Printer's Ink and Windsor Newton Black. Nothing works like Printer's Ink. It goes on smooth and dries fast. The two colors you'll need are silver and gold. They are great for painting shells and uniform insignia as well as weathering. Yes, they also mix well with oils and most enamels.



Top: that gorgeous Gunze turret, recessed screw heads and all. Right: all the details that make up the ModelKasten track set. At the top of the photo is the nifty idler set-up for the Tamiya Pz. IV J. Below that are the pins, the open teeth, some finished links and the track jig on the right. Above: a diagram from the Gunze kit showing the way the jig is used and the general concept of the kit's construction.



Check with a printer or an art supply store. I have done shells with this stuff and they pass the toughest of critics.

For the sake of review, I used the kit decals. I am not a big fan of waterslide decals, suffice it to say they are thick. I sprayed the area where the markings were to be applied with Tamiya Clear Gloss. Once dry, I set the decals using Super-Set and Super-Sol, in that order.

Well friends, I told you it was hard for me to restrain myself. Enter two useful little packets from Hudson Allen Studios, Mud #DIO-9504 and Hay #DIO-9506. I personally like to see muddy tanks, and this stuff fits the bill. Using a small bowl, pour in some powdered mud, which is already colored. Per the instructions I added some Liquitex Gel Medium (art store!), warm water and then stir. This will give the mud a wet look. But what to do with this hay stuff? I chopped it up and stirred it into the brew. Nothing warms my heart like debris in the mud. An idea occurred to me while muddying. This stuff would work great on the inside of foxholes. It has the right texture and the hay could simulate root structure.

The mud is water based, if you don't like it, wash it off with water. I went a little nuts and then decided to back it off somewhat. I moistened the area with clean water and pulled off the excess, just like real mud. Creepy.

While my final mud job was drying, I worked on the tracks. The tracks were painted Matt #179 Track Color and washed with oils. They were dry brushed with #113 Rust and the metal mixture. Be careful on the amount of paint you add on the tracks. Mine became a little less "articulatable" as a result, so watch it.

Metal mixture was also applied to sprocket

teeth and areas on the vehicle where the paint would wear away. Grab handles, hinges, etc.

Once everything dried, I mounted the tracks. Because of the mud, I had a little trouble getting them back on. I was glad that I left the sprockets and idlers off. Again, I would recommend mounting the tracks before final assembly. A coat of Testors Dull-Cote was sprayed on to seal the mud.

I wanted the mud to look like it was drying, so I applied various pastel earth tones. Black pastels were added to the gun barrel and the muffler. The rest of the vehicle was hit with a light dusting with pastels to give it a dirty look. For a final touch, I took a sharpened No. 2 pencil and gently ran it over areas where the paint would have worn away. This was used sparingly, just to give it a metallic look. If you want a more metallic look, try a Silver Prisma pencil (yet another art store item). This works great


for sprocket teeth, bolt heads, grab handles, machine guns or any other abused areas.

All Done

This was a fun model to build and I highly recommend it. It's a lot less money than the Gunze kit and once painted looks good. The only negatives, if any, were the lack of photo-etched parts and the decals.

I should also say that I felt that the DML StuG kits were perhaps better kits than the Gunze ones. High-tech doesn't mean what it used to with DML around. My heart's desire would have been to see this kit completely based on the DML product. I know, I'm spoiled.

The ModelKasten tracks were a real treat and I can't say enough about them. HIGHLY recommended.

I believe DML has done a good job of maintaining a high level of quality for a fair price. 

—Nick Vanston

MMiR RECCE

DML Panzer III J. Imperial Series 9011. Kit graciously provided by Dragon Models Ltd. Suggested retail, \$37.98.

References

Panzer III in Action, by Bruce Culver. Squadron Signal Publications.

Panzer III and Its Variants, by Walter J. Spielberger. Schiffer Publications.

Achtung Panzer No. 3, Panzer III, Art Box Ltd. (Model Graphix).

These are all the "standard" references on the subject. The Squadron one is undoubtedly the cheapest and it does cover a little of each of the variants. The Spielberger book tends to be a bit more on the technical side, with tons of developmental information. An interesting read.

The Achtung Panzer volume shows all the types very well and includes good coverage of the earlier tanks. This series is geared toward the armor detailer, so if you had to buy only one, I recommend this as the choice. Pricey at around thirty beans.

If you plan to build several models in this series (and we may see more in 1996), the three titles will all be indispensable. It's up to you and your wallet.

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Mini-Men

A Look at What's New on the Figure Front

DML

MUCH TO THE CHAGRIN OF THE WORLD'S RESIN COMPANIES, DML has begun to release an impressive line of 1/16th scale figures rendered in injection molded plastic.

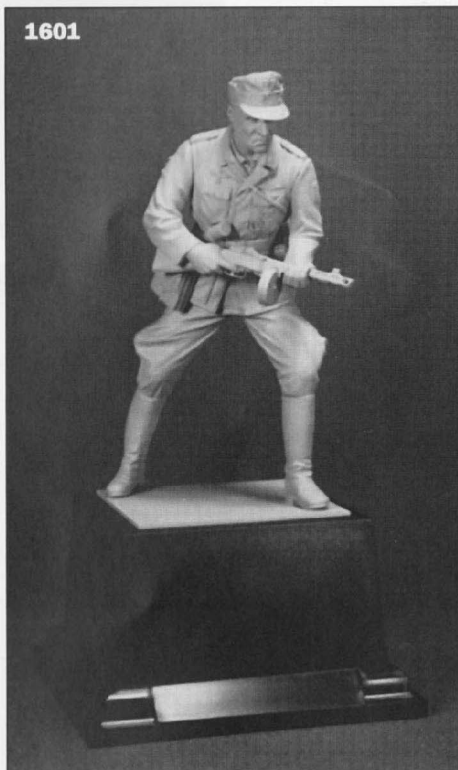
The line so far has been based all on earlier 1/35th releases. Each figure is based on the artwork of Ron Volstad, but are much more developed looks at the specific subjects. They all retail for around \$16.00 U.S. and this includes a black plastic base. Swell huh?

The first in the series is 1601 and is a **Wehrmacht Unteroffizier Eastern Front 1943**. This is the same figure as the officer from the "Cross of Iron" set in 1/35th. This would make him the "Steiner" character from the movie and on the boxtop he does bear a passing resemblance to James Coburn...

The figure itself is molded entirely in gray styrene and the body is split along its length, while all the other parts are molded solid (the entire line is like this). This split half method will probably limit the conversion potential of the line a little. It'll be harder to perform major surgery. A small, but super-useful sheet of photo-etch is included and it's composed of several well-known Heer and SS badges and medals. There are three small tanks to attach to squares molded on his right shoulder. These are tank destruction badges, awarded for the individual whacking of an enemy tank. The base of the badge was cloth while the small tank silhouettes were made of metal, so providing them in photo-etch is spot-on. Also included are the Infantry assault badge, the Iron Cross first class, the Wound badge and the Close Combat Clasp. Quite a decorated individual.

The level of molding is quite high throughout. The

1601



detail is easily the equal of any resin casting—pretty impressive for a plastic figure. The face for example has tremendous character. He looks pretty miffed at someone!

A complete selection of equipment is provided and is typical of fighting officers. He travels pretty light with a gas mask canister, map case, grenade and a pouch for his pilfered PPsh machine gun.

The gun is highly detailed and is provided with two options. It's molded in two halves split down the middle. Two sets of hands are included and one set has portions of the MG molded right on. The insides of the gun halves are marked to correspond to the gripping hands, allowing you to precisely cut the gun to fit around them. This is a bit of a trick, but it yields the most realistic result. The other set of hands are molded open for the gun to be placed into.

The overall proportions of the figure look good. Anatomically speaking he looks correct in most respects. His left leg has an odd little curve to it and this is mostly in the boot, which is fortunate because it makes it relatively easy to correct. The bend should probably be more towards the ankle. His riding breeches are a little geeky looking, but once again easy to fix if you decide to.

There are a couple of detailing possibilities, like adding a sling to the MG and perhaps refining the gas mask strap. Other than that, this kit is very complete. A great first effort in the series.

The instructions and box top art are quite good. You may not need to look anywhere else for reference unless to plan to convert.

The next in the series is a **SS Sturmbannführer for the Ardennes in 1944** (1602). This bad guy is all decked out in an SS camo smock and trousers from the 1944 camouflage uniform. His equipment consists of a map case and an ammo pouch. The pouch belongs to a superb Sturmgewehr assault rifle. The field glasses worn around his deck are even complete with their protective eyepiece covers. Keen.

Attached to the painting instructions is a small printed map to be cut out and placed in the figure's right hand. A neat little addition.

Another stunner, this kit has great details. The officer's belt, the foliage straps on the smock and the

1602



1603



1604



ammo pouches are all finely engraved and really pop out when you see them for the first time.

Although he's listed as an officer, if you modified the belt, lost the map case and swapped his hat (maybe with the cap from 1601?), you'd have yourself a grenadier. There is also the VP and Kirin range to consider. Both offer extras such as weapons and equipment if you've got the conversion bug.

You don't really need it, but if you're looking for more inspiration, check the Osprey Elite Series #11, *Ardennes 1944: Peiper and Skorzeny*. This contains an excellent concentration of Peiper's grenadiers as they rampaged through the Ardennes and more of that good ol' Volstad artwork.

The third in the series (1603) is a your basic garden variety **Fallschirmjäger Monte Cassino** (if this guy's in your garden—duck!). He's described as a Monte Cassino-era trooper, but other than his second pattern jump smock, there's not much to pin him to the latter part of the war.

As this series progresses, we start to see more and more infantry equipment. This time we get a bread bag, mess kit and a water flask. Among the gear are several cartridge pouches to place along the front of the torso. When they are glued end to end they create a very realistic effect, especially where they cross over the grenade tucked in his belt. This is a neat little item, being molded into the back of the belt. It gets placed into a cavity in the torso (ouch!) and the result is highly authentic.

Again, good crisp detail is present throughout, with particularly good facial features and rendering of the various folds in the clothing.

The Kar 98 is provided with the option of showing the bolt being pulled back and a separate bolt piece is supplied of this. You must cut this area away on the existing casting to install the part.

Reference hounds can look for the old Men-at-Arms 139, *German Airborne Troops* or the Squadron Signal "In Action" on the Fallschirmjäger. Last year's Ryton publication on German Paratroops is the deluxe option.

The final member of the 1/16th scale team this time around is listed has a **Sturmarmy Ardennes 1944**. This is a companion piece to the *Sturmbannführer* above and it's inspired from the same 1/35th scale set.

On the box top our man is pictured in the full SS camo ensemble complete with helmet cover. He's depicted as an "MG Schütze" toting an MG 42 over his left arm.

We get the full complement of gear now, bread bag, flask, gas mask and entrenching tool. A spare barrel container, tool kit and pistol round out the gunner's gear.

The figures get more and more detailed as the line progresses. Evidence here is the stupendous MG. It's broken down into several parts to increase the level of detail and it's a real beauty. If you do other large scale figures, you'll be snatching this item frequently.

The strap for the gun will need to be added as it's integral to the pose. The figure's left arm rests on the gun and this causes tension on the strap and completes the pose.

The detail du jour for this guy is his right hand. He carries an ammo canister and the handle has been delicately molded into the hand. When installed onto the canister the whole assembly is quite attractive. The canister itself is made up of several pieces and some interesting effects could be achieved by showing the surface of the canister chipped and worn.

On the down side the figure's legs and feet seem somewhat small in proportion to the rest of the body. Interestingly, this appears worse on the box side example, where the figure's head is bigger than the one provided in the kit. The foot problem could be remedied without much difficulty by swapping feet with another kit. This would probably bring the legs back into proportion.

All these figures represent a terrific effort on the part of DML. The appearance of the series is a significant event in the history of this scale. We wonder if

1/16th plastic armor could be far behind?

The next up in the line is a U.S. Paratrooper from the 101st complete with mohawk haircut. No further releases have been announced, but we're hoping many more are to come.

If you are timid about trying a figure, this is a very safe place to start. Just think of it as another armor kit—this time with a face!

6029 - German Sturmartillerie Crew

YOU KNOW... IT ONLY MAKES sense that if you intend to manufacture Stug. III kits, you ought to populate those kits.

So there you have the *raison d'être* for DML's German Sturmartillerie Crew. Of course it'd also be nice if they popped some plastic goobers for that JS-II and Sherman series, but... Anyway, this set offers the Stug. modeler an opportunity to add crew members from throughout the war.

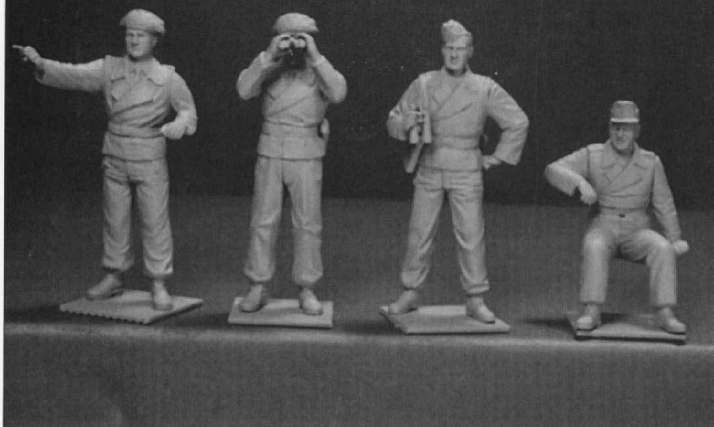
Out of four figures included in the set, two are early war (with the hard-lined beret), one can be used in any time period from late 1941 to 1945 and the fourth has the *feldmutze*, which places him from early 1943 to 1945. Uniform-wise they are dressed in your standard field gray, short jacket, *sturmartillerie* garb. Nothing fancy or esoteric with these goobers. They're all business.

On the whole, these guys appear pretty relaxed. No real tension here. But what makes them nice is there is some action in their poses. The guys in the berets are a team. With one fellow pointing, with one of those nifty European pipes (the ones you used to see in record stores in the late 1960s and early 70s), while the other takes a peek with a pair of standard binoculars.

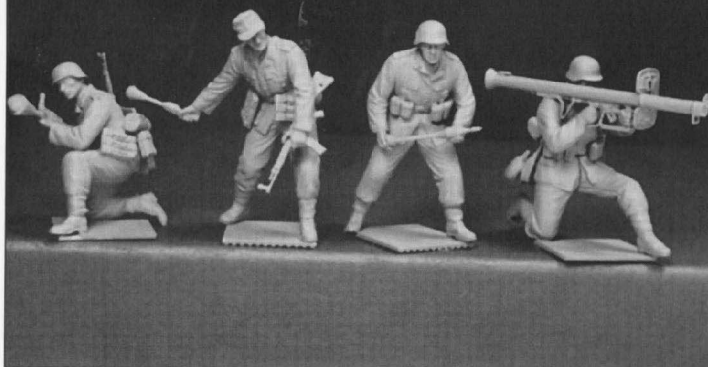
The figure adorned with the *feldmutze* is sitting in a hatch waiting for the field kitchen to roll around. He holds a pair of earphones in one hand, a very nice touch. He even has a smirk on face as his vehicle rolls past some mud splattered "front swine." The remaining fellow has commander written all over him.

This guy is perfect for standing on the engine deck

Stug Crewmen



German Tank Hunters



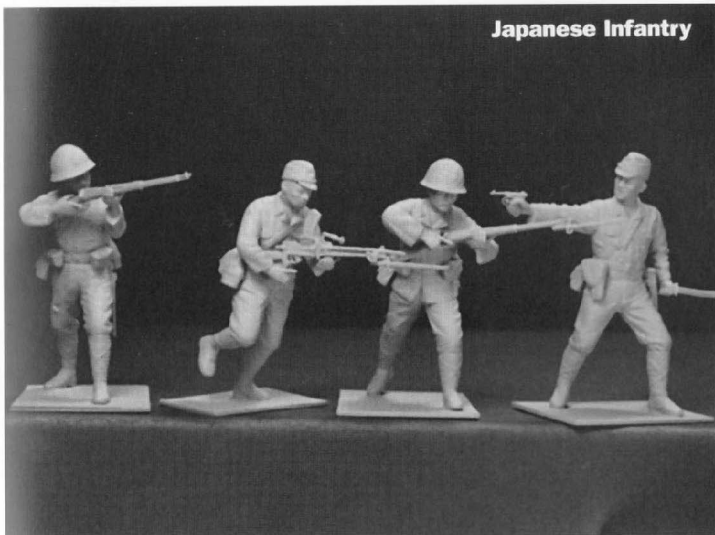
Marines - Iwo Jima



just making all the other crew members uncomfortable.

Once again all the uniforms appear to be right on target, even down to a mike switch for one of the early crewmen. DML has done a real nice job of molding the early beret, which could also be used for early panzer troops. It's got that big bulky, goofy look that led the Wehrmacht's public relations guys to switch over to

Japanese Infantry



it upon themselves (or sometimes at their commander's insistence) to take on enemy tanks mano a tanko.

While not a futile gesture, it certainly provided many a wife in post-war Germany with a pension. However, they also provided many a wife in the U.S.S.R., Great Britain, France and the United States with an equally tragic pension. A grenadier toting a panzerfaust was feared by American tankers every bit as much as a Tiger I at range.

DML has given us four figures of tank hunters with which to threaten our Allied plastic.

The "landsers," featuring a two-man Raketenpanzerbüsch 54 team, a panzerfaust shooter and panzerwurfmine tosser, fit the bill for any late war diorama where tension is needed.

Sharply molded in DML's standard gray styrene, this mini Dora team fills a longtime void well.

The molding is nice and sharp and the poses look natural and threatening. Hands are grasping the weapons about to be used. Two of the faces are actually scrunched up as if sighting down a panzerschreck or panzerfaust! (Hey! Mr. JS-II, You have to ask yourself "Do I feel lucky?")

The uniforms are strictly late war, with the non-pleated pocket jacket and low cut shoes with gaiters. Unfortunately there are no short British-style tunics in this group. Fear not! These guys will look right at home taking a stroll down Wilhelmstrasse in April 1945.

If there's a nit to pick with this kit (and it ain't much of a nit), it's the weapons. While they are finely molded, as usual, there was more than enough flash on our example to make clean-up a real chore. Especially bad was the

flash around the various parts of the Raketenpanzerbüsch. Watch it!

If you take time with the weapons they will reward you with some very fine and quite noticeable detail. We were particularly impressed with the way the Raketenpanzerbüsch fit on to the hands of its operator. This was kind of a weird weapon. It was actually

derived from U.S. bazookas captured in Tunisia and Italy.

The hand holding the panzerwurfmine is also gripping its end, but you must trim the end of the grenade to fit the hand. The PWN was another weird one. This was a funky grenade with spring-loaded fabric fins attached to it. The thrower held the fins together and when he let go, they sprang open to help the bomb find its mark. A cap kept the fins together for transport to the party.

We already have our set earmarked to take on a JSU-122 in the parking lot of one of Berlin's 7-II's. (Big Gulp this Ivan!!!)

6038-Marines-Iwo Jima

6044-Japanese Infantry

THE PACIFIC THEATER OF WORLD WAR II HAS LONG BEEN neglected by manufacturers. Hasegawa had a U.S. Marine set a few years back but it was a bit overpriced and it disappeared pretty quickly.

In keeping with DML's apparent mission to make all our modeling dreams come true, they have released not one, but two Pacific war sets.

The first is a group of extremely angry looking leathernecks from the battles on Okinawa. These cats aren't just standing around. They are all depicted in aggressive combat positions.

All are shown as war weary, with pants untucked and ripped up, and all are ready to get down to business. We've got a BAR gunner, a flame throwin' dude, and two riflemen.

Only one of the riflemen carries an M1 Garand rifle and he's got it pointed with his bayonet. The other rifleman sports a M1897 trench gun. This was a nasty close quarters riot weapon that could fire a "punch round" of shot. Not a nice way to say hello. The Marines were fond of these guns for the kind of close-quarter fighting that was involved in the island hopping campaigns.

Slung over his shoulder is a M9A1 late pattern bazooka. This fired a 2.36 inch rocket propelled projectile and could be folded in half for travel by means of a collar located halfway along its length. This was a later war item and therefore appropriate to the set.

Our flame throwin' dude carries another nasty piece of work; the M2A1-7 flame-thrower. This was a formidable weapon that was indispensable for flushing out fortified areas. It shot a narrow stream of thickened gasoline about 40-50 meters. Ordinary gasoline could also be used and this yielded a billowing flame of up to 25 meters. Either fuel gave the weapon four or five short bursts or up to nine seconds of continuous fire. Yeech. DML rendered the part quite well, though you should be careful when removing it from the sprue—it's slightly delicate.

The fourth jar-head is outfitted as a BAR gunner and DML provides all the correct ammo pouches to line around his mid-section.

The set has many smart details that peg the four as Pacific Marines. Each has two canteens, ammo bandoliers, extra bandage and grenade pouches and the ubiquitous camo cloth helmet covers.

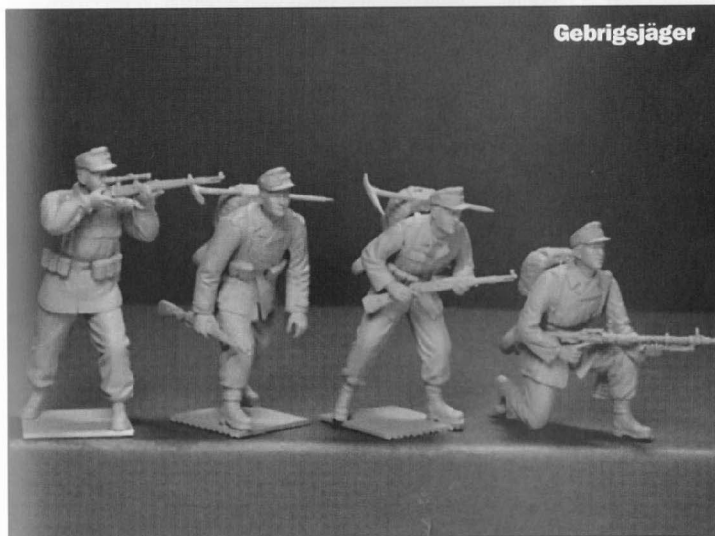
The Japanese infantry set is the first we've seen since the Tamiya set of many years ago. All four are shown charging forward—the box art shows them leaving a cave. Rather chilling, but certainly accurate for the period.

All are outfitted in the lightweight equipment typical of this time of the war. Three are regular infantryman known in Japanese as "Hetai." Probably the rough equivalent of grunt or schutze. These two guys carry the Model 38 Arisaka rifle, named after its inventor, Col. Nariaki Arisaka. "38" in this case refers to the 38th year of the Emperor's reign when the rifle was adopted in 1906. The weapon was only of 6.5mm caliber, but was light and easy to handle.

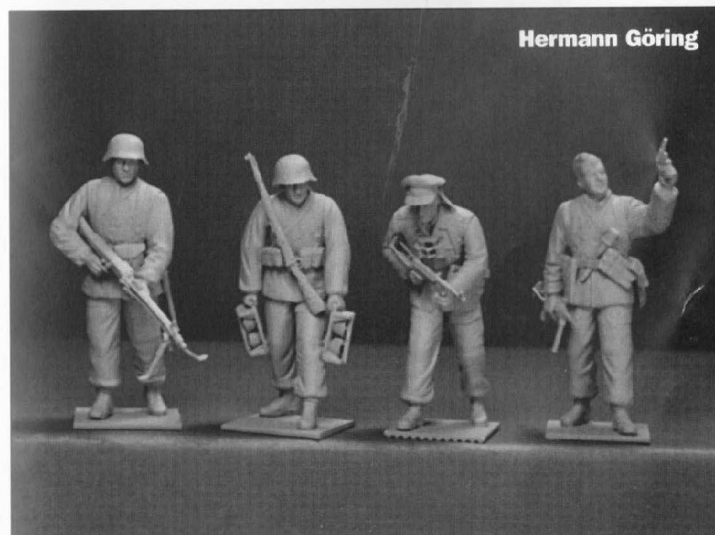
Both Hetai's sport the Model 92 helmet, one with net cover, the other with a cloth cover. Both were common.

The third infantryman carries the Type 96 machine gun. Another 6.5mm weapon, it was largely

Gebrigsjäger



Hermann Göring



spiffier lids.

As per usual, DML includes its wonderful little photo etched earphone-throat mike set. They need to just put about 40 of them in a box and sell 'em.

6034 - German Tank Hunters

GOTTERDAMERUNG!!! AS GERMAN AFV'S BECAME SCARCER in the waning stages of the European war, groups of men took

Jaguar



based on the Czech ZB, which makes it distantly related to the British Bren gun. This fellow wears the standard campaign cap which was probably one of the most identifiable features of the Japanese soldier in World War II.

The fourth figure depicts an officer and the model typifies the image of the wartime leader. He also wears the campaign hat and is armed with a pistol and his Samurai sword. He has discarded the typical tunic for shirt sleeves, which was permissible by regulations. The pistol provided by DML is a work of injection molded art. Be careful! The pistol and the sword really set off the figure.

Both sets are well worth adding to your collection and they fill a much neglected void in plastic figures.

For reference on the Marines check out Osprey Vanguard 8; *US 1st Marine Division 1941-45* or *Uniforms Illustrated No. 11*; *US Marines in World War Two*. Reference on the Japanese can be found in our favorite; *The Armed Forces of World War II* by Andrew Mollo.

6045 German Gebrigsjäger (Caucasus 1942)

DML CONTINUES TO KICK PLASTIC BUTT BY EXPLORING THE ODD and unusual subjects. This set represents four mountain troops and the label of "Caucasus 1942" marks them as either from the 1st or the 4th Gebrigsjäger divisions. These were the troops who captured Mount Elbrus in the Caucasus mountain range on August 21, 1942. This was part of the sweeping Operation "Blau," the second German offensive in Russia.

German mountain troops were highly specialized and trained troops and they were outfitted with a

variety of unique clothing and weapons.

Three are shown with the M1931 heavy mountain rucksack (that's Rucksack 31 für Hochgebrigsgruppen to you), which are all stuffed to the max. Early versions had leather straps, while later ones had cloth. Paint them to your tastes.

Pick axes are provided to place across the tops of the sacks. You must trim out the middle of the ax to show it thrust through the top, an interesting effect.

One of our Gebrigs is clad in the basic 1942 Pattern uniform with the field gray collar, but all the others wear some of the special mountain guy clothing. Two wear the "Windjacke," a double-breasted cotton unlined jacket. The sniper figure wears the two-piece wind suit, composed of the three-pocket anorak pullover and pants. The anorak was reversible, the other side being white.

The weapons are an interesting lot. Two are armed with the Gew.33/40 carbine. This was special issue to mountain troops and the weapon was ex-Czech vz.16/33. The kneeling figure is hefting an MG34, while the sniper raises a standard Kar 98k rifle fitted with the Zielfernrohr 39 (ZF39) telescopic sight.

A full complement of standard gear is provided, including water flasks and cartridge cases. All the figures wear the early version of the cloth field cap. This differed from the later version by having a shorter bill and turn-down flaps. DML gives us the edelweiss insignia properly molded on the left side of each cap.

One other feature worth mentioning is the heavy nailed boots worn by all mountain troops. They're very effectively done in the set. Later in the war, when the mountain troops were dispersed as regular infantry, these boots still were worn. Highly popular, they are seen in photos of units serving in Normandy and Italy as late as 1945.

For reference see the excellent *German Soldiers of World War Two*. This is all of the German subjects culled from the pages of *Militaria* magazine, reprinted in English. Hubba-hubba.

6036 Hermann Göring Division (Tunisia 1943)

THIS VERY LATEST SET FROM DML REPRESENTS FOUR MEMBERS of the Hermann Göring Division as they appeared in the battles for Tunisia in 1943 (no kidding!).

The Hermann Göring Division has a rather interesting history. As most of you know, Hermann Göring was the head of the wartime Luftwaffe and Hitler's big fat pal. Early in his days (1933) as the Prussian Minister of the Interior, Uncle Herman took it upon himself to form his own polizei gruppe to fight commies and generally make trouble. The gruppe later grew into regiment and by 1935 had been incorporated into the Luftwaffe as Regiment Hermann Göring.

From the start, HG was considered an elite division along the lines of Grossdeutschland. They were at the forefront of most of the major campaigns throughout the early war years and were always on the priority list for equipment and supplies.

Two infantry regiments from HG were sent to North Africa in 1943 where they were attached to the

10th Panzer Division. They fought there until the German surrender in May. Some elements escaped to Sicily and HG was rebuilt into Panzer Division later that same year.

While in service in Tunisia, HG outfitted its troops in a highly unusual combination of garments. Of the four figures in the set, three wear the SS camouflage smocks and helmet covers. As odd as this is, it's a documented fact. The box top shows the "plane tree" pattern. This pattern smock was reversible from a green pattern to a red brown one which accounts for the two different styles shown.

Two of the four are armed with the MP 40, while the other two are a two-man MG 42 team. One carries the gun and the other the ammo and his Kar 98. One of the MP 40 schutzen raises his "Leuchtpistole" flare gun to signal Müller Time.

Underneath, the HG jäger wore the basic Luftwaffe tropical uniform and all four here show off the baggy trousers common to that uniform. Our fourth guy wears his tunic sans smock.

This fellow is capped with the famous "Hermann Meyer" tropical hat. This was a wide hat with a large brim that also came with a button on neck flap. The hat was popular, but it's nickname reflects the German soldier's particular brand of sarcasm. The story goes that Herr Göring once said that if Berlin was ever bombed by the British "my name is Meyer." And so the Hermann Meyer hat was born.

The rest of the stuff in the box is basic German kit, with all the great little items we've become accustomed to from DML. Two items worthy of special note are the ammunition cases for the MG 42. These are very finely molded and highly reminiscent of the original.

The best reference going on this subject is the Osprey Elite Series 34, *AfrikaKorps 1941-43*. This contains some of Volstad's best, with a terrific plate on the HGD and complete information on all the uniforms represented in the kit.

Jaguar

THIS IS A NEW NAME TO MANY ON THE FIGURE SCENE. AS NEAR AS we can figure Jaguar is part of the Marco Polo group of companies and are cast in the U.S. Regardless of their origin, the stuff is looking good!

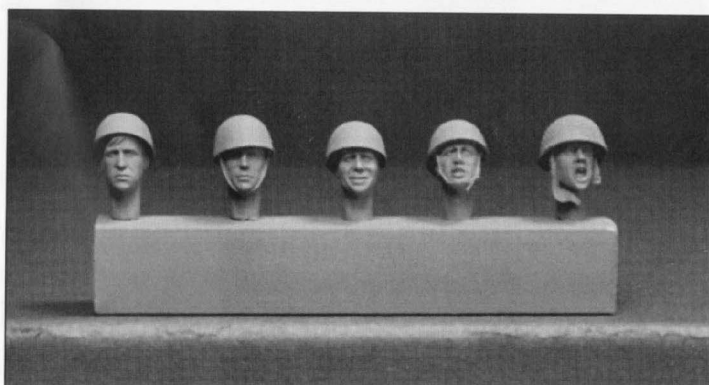
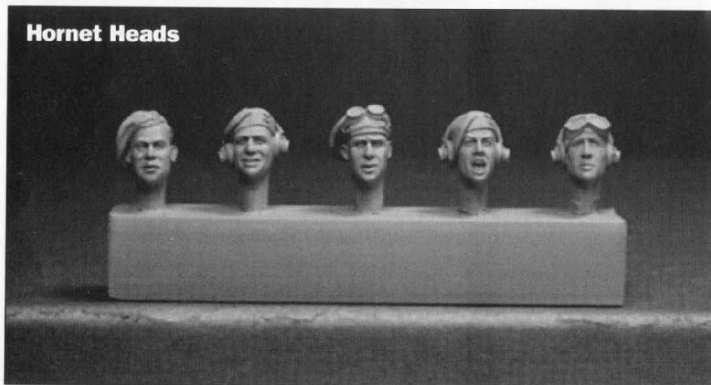
This first piece depicts two **wounded Panzer crewman** as they move away from their vehicle. A very ambitious piece, these two figures build up into a single model. We suggest assembling the two torsos first and aligning the wounded soldier's arm. Two posts help keep both figures aligned. We still ended up with a slight gap in the waist of the wounded guy, but this was no big deal. We were very impressed it went together as well as it did! Quite a piece of modeling engineering.

The sculpting is all first rate as you can see. The rendering of the torn trousers is exquisite.

There are lots of possibilities with this set. Exchanging boots, heads and headgear can create a variety of other interesting set pieces.

Good stuff.

Hornet Heads



Hornet Miniatures

HORNET THROWS DOWN TWO MORE SETS IN ITS SERIES OF replacement head packs. These two are both British subjects. The first is a set of five heads clad with berets. They are generally configured as tank crewmen, with three having molded-on radio headsets.

The second set all wear the British rimless helmets making them suitable for either tank weenies or as paratroops. Three are provided with chin straps while the other two are bare-faced. This gives you a few options, the straps easily being added with lead foil.

These all come at a great time as we see more and more allied armor. British, Canadian, Australian and Polish crews all wore these same types of headgear. Very versatile and useful items.

We can never say enough about this excellent line of miniatures. Don't get us started, we'll go on all day!

Hornet Miniatures can be found at many shops around the U.S., such as The Red Lancers (see page 10). In Europe and the UK inquire at Roger Saunders & Associates, 290 Queens Road, London SE14 5JN UK.

JMP Productions

THIS FRENCH FIRM IS KNOWN MORE FOR THEIR VEHICLES AND buildings than for figures. Reference 35 121 is a **Russian accordion player**. We like these victory of Berlin type figures. They really spice up the drabness of chunky Russian armor. This guy however has a way to go before reaching Berlin. He is shown wearing a standard summer field dress uniform from the 1941-42 period. This consists of the gymnastirorka blouse and



trousers with the prominent diamond shaped knee reinforcements. He is also shown wearing the peaked cap. By painting alterations you could place him in any branch and make him either enlisted or an officer, as they wore the same basic uniforms. As is obvious, there were a few pin holes in the castings, but these are easily fixed. The positioning of the accordion was hit and miss and a small construction note wouldn't have been a bad idea (unless of course, you play the accordion!). The figure comes with a munitions crate to sit on. It's an interesting figure which we don't hesitate to recommend. Available via JMP Productions, 2 Rue de L'Avenir, 91550 Paray Vieille Poste, France.

MK Editions

THIS SMALL BUT HIGHLY TALENTED FRENCH COMPANY HAVE BEEN releasing a series of figures to complement their existing building and accessory sets. These figures have just the sort of interesting uniforms and poses that you just can't find in plastic. We have received several figures for review and unfortunately we only have room for three in this space. While MK produces both U.S. and German WWII troops we picked the three Germans for this round.



On the far right in the photo: F024 is a seated **Fallschirmjäger**. He is wearing a second pattern jump smock and steel jump helmet. Note that at this point in the war there were a lot of non-jump qualified paratroops who continued to wear Fallschirmjäger equipment while serving basically as infantry. There also was a disparate assortment of equipment, thus it was possible to see FJ troops outfitted with marching boots and steel infantry type helmets, or even camouflaged blouses. This bad boy, however, is decked out in a typical para outfit. He is set in such a position that you'll need to attach his hand to a strap, looped around a grab rail. He would look real spiffy on the side of the King Tiger or Panther, or any other AFV for that matter. He isn't equipped with a weapon, but that's no big deal when you have the Quartermaster Series sitting right there on your shelf! This way you have the choice of which instrument of destruction to provide.

The seated fellow, F027, is meant to slip into the seat of a Schwimmwagen. He could just as easily drive a Kubel, or with a little fiddling go into a side car or inside another vehicle. If his feet are going to be visible you'll need to raid the spares box, as this guy is suffering a traumatic amputation of the feet! He's wearing an SS Tarnjacke and soft cap, often used by panzer crew members. This came in several shades including feldgrau and camo. The trousers are standard late war camo, often cut out from captured stocks of Italian "bariloe" material. This gives you another option at

painting time. Finally, he's got a pair of the much coveted one finger mittens.

The last gent in the center, F025, is wearing the same uniform as the first FSJ. He has a balaclava and mittens, one of the luckier ones. He's really the sort of character you see in all those archival film runs of the Ardennes and the Bulge. He's got some netting on his helmet of the large pattern.

These figures are all molded in greenish resin, and despite a bit of flash and mold seam, all are a solid investment for your diorama building pleasure. We would give them AAA diamonds and gold rating (if we did such things). Available via MK Editions, Chemin des Esperettes, 30200, St. Laurent de Carnols, France.

Northwest Frontier

WE WERE FIRST INTRODUCED TO THESE FIGURES AT THE TRUCKS N' Tracks event in England. We chose four of them for the purposes of this review. Their poses are realistic and the faces are full of character. They are period/battle site oriented. This means that they are based on historical characters or photos and are typical of that particular region or conflict. They are all German WWII. If you like this period they're super, if not—well tough peanuts! Now weighing in this corner (from left to right in the photo) W7 represents a panzer commander figure from SS Pz-Abt 501 in La Gleize, 1944. He is depicted wearing the special overall reversible-type winter trousers. In 1943-44 the SS began using padded winter jackets with oak-leaf camo.

Prior to this they had primarily used the gray/white Wehrmacht type. He is wearing a roll neck pullover, often seen on panzer crew members during this period. Topping the figure off, so to speak, is the old-style shir-mütze preferred by officers. This could also be the newer type with the metal stiffener removed which was a common practice. The older type of cap was difficult to obtain, especially this late in the war.

The second figure is W6 and represents a **tank officer** from the Kursk salient battles; Pz.Rgt Grossdeutschland, 1943. Note that while these figures are set to a specific unit, a little modification could place them almost in any unit and time period (within limits of course). W6 is shown wearing the heavy black, two-piece, tanker's uniform. The uniform is decorated with several medals and the facial features of the casting are particularly interesting. He's wearing a scarf which can be in any shade, preferably drab. Once again, with the slightest modification he could be turned from Wehrmacht to SS, if so desired.

The third figure in line is W3 and is a **paratrooper** from Operation Merkur/Crete 1941. He is shown wearing tropical shorts and half boots. He is wearing what appears to be a second pattern fliegerbluse and springerhelmet, which had the M31 liner and adjustable chin strap. While this figure is shown as for Operation Merkur, he could just as easily depict a para from Tunisia or somewhere in North Africa, such as the Hübner battalion, 5th PJR in 1943, or the Ramke brigade in Tunisia, 1942.

Finally, W5 is an **Untersturmführer** from the 1st SSPz.Rgt I Stoumont 1944. He is shown wearing the typical cross-over tanker's jacket with a pointed collar. The trousers are the late-war camouflage type with the special pockets for tank crews. He is sporting the black cloth Einheitsfeldmütze. He too is wearing a roll neck pullover shirt.

The sculpting is very fine on these figures and they are similar in style and form to those of the famous Wolf/Hornet range. All are cast in green "Verlindenesque" resin, with the odd bit in the old sand color. The figures are all provided with a small, attractive base and could be easily be displayed alone.

Northwest Frontier can be contacted at Pelorus, 7 Trumacar Lane, Heysham, Lancashire LA5 2SY, UK.

PJ Productions

Who?? THIS IS A NEW COMPANY, WHO PRODUCE OTHER ITEMS such as figure busts etc. This, their first step into the 1/35th arena is a nice surprise. The figure B010, represents a **U.S. soldier** toting a Thompson MG. The rendition of the helmet is well done, as this is often depicted too small on other figures. He's wearing the double breasted, 1942 model Mackinaw, with what appears to



be the M1943 field trousers. The only problem with the figure was the fit of the left arm to the body. While there is an emplacement for the hand it just doesn't fit. A shot with the hair-dryer and a little super glue will fix the problem. This figure comes complete with scenic base, and could therefore be done as a stand alone. This is a nice figure that breaks the run of the mill. Direct orders via PJ Productions; Rue Albert Bodson 38, 6280 Gerpinnes, Belgium. Tel/Fax 071 50 44 39.

Tamiya

35188 - German Tank Ammo Loading Crew

YOU'VE JUST PUT IN HARD DAY out on the steppe plinkin' T-34s, and the ol' ammo locker is looking half-empty instead of half-full. So you've got to skedaddle over to supply and find some more love letters for your pal Ivan.

Tamiya has provided, for our amusement, a set of four fellows in various poses filling those empty ammo racks.

This is an interesting set in that it is composed of two identical sprues.

That's riiiight, two identical sprues, yet we can get four unidentical figures. Okay, okay, okay... here's how it works, and rather neatly at that.

Each sprue has two torsos, one in standard Heere, post-1943 (no pocket pleat) jackets, and another in the denim overalls. But each sprue also has four heads and six arms.

Now you're catchin' on, you mix and match to get your figures. However two sets of arms are denim overalls specific. In addition, two of the heads are bare and two are wearing standard sidecaps.

The box art depicts one fellow lugging a round across his shoulder, another hefting one up, a third reaching down to get a round and a fourth bending over to get a round out of its packaging.

The detail on these figures is sweet. The faces don't display a lot of emotion, but why should they? This isn't like a three-day pass!

Surprisingly, the figures are only a small part of this set. Most of the sprues are taken up with a plethora (that's two plethora) of ammo and ammo crates.

There are crates for "Hans" (Pz.Kpfw. IVs), Panthers, Tigers and King Tigers. They are all very keenly molded, with wood grain detail on the outside and inside—and the proper braces at good scale thickness. Tamiya has also thoughtfully provided decals for labeling all those crates. Tres cool! There are enough of these sweet little devils to spice up any diorama or vehicle.

There are also shells for each of the above-mentioned vehicles. Three pzgr. patr. 39 for the IV's KwK 40, one pzgr. patr. 39 for the Panther's KwK 42, two spgr. L/45's for the Tiger I and one pzgr. patr. 39 for the Tiger II are provided per sprue. I'm not quite sure why these were included when all are available in various Tamiya brass sets, but they look very nice.

To round out the deal (pun intended) Tamiya



throws in an exquisitely molded spare Panther road wheel and a pussy cat on each sprue. There's a dirty joke in there somewhere...

So after building numerous AFVs on the sharp end of the stick, use these guys to give your next project a little breather.

35192 - U.S. Army Assault Infantry Set

TAMIYA HAS FINALLY BEGUN TO REGAIN A LITTLE OF THE GROUND lost to DML with this latest figure set. You get six figures in the box, which coincidentally (or maybe not) is half of the typical U.S. infantry squad during the war. As such they have represented some of the various personnel that made up such a squad. On paper this consisted of one or two NCO's with automatic weapons, one BAR man (.30 Browning Automatic Rifle), one man armed with a rifle equipped with either sniping or grenade launching gear, and eight riflemen. The set represents all these elements except the remaining six rifle heads.

All the poses are all action. Everybody is digging in for a fight. They all look like they're assaulting! There is animation here man—and lot of implied movement. Tamiya where have you been?

The uniforms are a mix of the M1941 OD field jacket and the M43 jacket. This would probably date them later in the war. The M43 gear started popping up in late '44 when replacement troops began appearing dressed head to toe in it. All the figures wear the gaiters and combat shoes. This is rather unusual for the guys with the M43 jackets. Toward the end of the end most men had discarded the hated gaiters for the M43 boot with the reversible uppers. Can you blame them?

You and your X-acto could easily backdate the M43 jackets. Just remove the chest pockets and shorten the length a little. With careful painting it could also pass for the M1942 herringbone twill jacket. This had chest

pockets and was worn slightly longer than the M1941 field jacket. The M1942 stuff was all a lighter shade of khaki green.

Those of you who have been begging for good U.S. equipment can come in out of the cold. All the gear is on a separate sprue (sequel city?) and you get a wide variety of good bits. GI canteens, M1942 and M1910 entrenching tools, MkIIA1 frag grenades and the M1928 haversack. All Tamiya tasty. You'll be stealing these for years.

The weapons are all new tooling, not at all reminiscent of their earlier efforts. In addition to the M1 Garands, there is the grenade armed version (cast as one piece), the BAR, the M1928A1 Thompson and an M1 carbine. The carbine began to replace the Tommy Gun in 1944 so it's logical to have included it for the assistant squad leader.

The helmets are all new too. The old Tamiya helmets were rather notorious for being too small. These have the nice steel pot look to them and fit on to the heads well.

We checked this set against some of the accessories parts we had, and Hornet heads and VP hands and other goodies all fit perfectly. This set will be one of the better values of 1995. Go get 'em!

Warriors

NEW NAME, NEW PRODUCTS. WE HAVE A WHOLE BOX-LOAD OF goodies (quite literally) and all are new, new, new. Everything was super nice and we generally had a ball building them up for review. We've have omitted a few of the older items in order to fit all the newest stuff. Here's the run down:

35007 is a two figure set showing an American tanker shaking hands with a Soviet officer. The set is entitled "Victors" and it must have been a common scene as the allied armies came together.



The GI is shown as a tank crewman and as such is clothed in the winter combat trousers issued to tank crews. This was a cozy, blanket-lined overall type garment with a permanent bib front. The garment on the figure is of the second type produced, identified by the metal clasps on the top of the bib.

This figure also wears the M43 boots with reversible uppers which pegs him to the late war period. He wears his trusty Colt slung at his side.

His new Soviet pal is decked out as an officer. His pistol and gloves get him in the ballpark and the Sam Brown belt and sharovari semi-breeches take him home. The box top depicts him as a Lt. Col. of the infantry (we think), but you got a lot of latitude here. The rectangular collar patches were worn by almost all branches of service, including the air force. There was a wide variety of different colors and patterns, so

check your references carefully.

This is a useful little set and will give you an "instant diorama" when combined with a Sherman and maybe a GAZ jeep?

For reference see the phenomenal *World War II GI in Color Photographs* for the dog face and *Red Army Uniforms of World War II* for Ivan. Andrew Mollo's *The Armed Forces of World War II*, has a terrific explanation of all the various Soviet wartime insignia in the form of a full-color chart.

There is an excellent and full account of the first meeting between the Allied and Soviet forces in *After the Battle* magazine, number 88.



35009 is listed as a **French Tank Crewman** and he is outfitted almost completely in the standard American combat uniform of the OD field jacket and denim trousers with boots and gaiters. His special feature is the French motorized troop helmet. This was eventually to become quite common.

It was first seen in the French Moroccan Spahis units in North in 1943. These units were attached to the 1st and 2nd French Light Divisions. They provided recon elements to the Free French and made a good accounting of themselves in the fighting in Tunisia.

The figure appears to have been inspired by a color painting of a Spahis Lieutenant in the above mentioned *The Armed Forces of World War II* by Andrew Mollo on page 149. The plate illustrates well the addi-



tion of his Lieutenant's bars to his helmet and also to his shoulder straps. It also shows a perfect view of the regimental crest worn on the left sleeve of his jacket. He has placed a five-pointed star on the helmet and this included on the figure. We never did figure out the story behind this (unless it's just to say "I'm Allied").

The above mentioned book is above mentioned a lot in these pages. It's an indispensable reference for all WWII figures. If you can't find it in the bookstore here's the publisher's address: Crown Publishers Inc., One Park Avenue, New York, NY 10016. Overseas, look for ISBN-0-517-54478-4.

35010 is a beautifully understated **Soviet Tank Commander**. He wears the simple gymnastorka blouse and padded helmet. One hand is shoved in a pocket while the other hangs casually at his side.

The casting is wonderfully simple—it's only one piece, just a very little clean-up and he's ready to paint. You could stick a ciggy in that dangling hand for extra effect.

This wild man would look ultra cool standing next to your next T-34, KV or JS.

Number 35011 is **Der Führer** himself. This is one of the most unique depictions we've seen of the German leader over the years. The figure is presented as Hitler was in the final days of his life and is based on wartime newsreel footage of Hitler presenting the Knight's Cross to a group of Hitler Youth. The film shows his rather bent and broken visage as he walks along the line of children, occasionally stopping to pat one of the lads on the face. A chilling image to say the least.

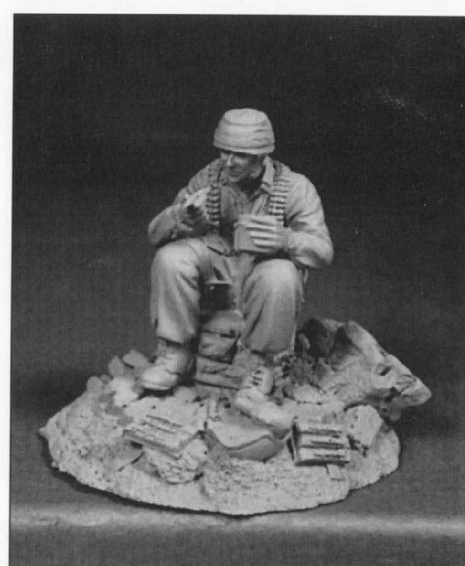
Warriors as captured the portrait well here and the sculpting is of a high standard. It's a fairly simple piece and this can be as difficult to pull off as a complex one. The folds and details of his top coat are rendered quite well, as is his peculiar peaked cap. At first glance it looks too large, but examination of other photo reference shows that it was on the large side.



The box top photo is an excellent color guide and you'll be challenged by the neat solid tones of the coat and pants. No mud or pastels to help out here!

35027, 35034 and 35035 all represent **Fallschirmjäger**s. The first two are a set and both stand rather defiantly off into the distance with their weapons slung at the ready, they both have a great bulky feel to their clothing. There's lots of animation in the faces and both have finely rendered cloth netting on their helmets. One of the two is also based on a color plate from the Mollo book. In the plate, he is depicted as one the Skorzeny commandos that participated in the raid to snatch Mussolini. So there are some other interesting options.

The second desperado (35035) walks along with his Kar 98 (or FG 42 in our case) while he enjoys a bit of his pipe.



the new Tamiya Panzer IV J.

The first set, **35031** is made up of three figures. A half figure is provided for the driver and he wears the M43 cap and headset. The second figure (radio operator?) leans out over his hatch and his hands are folded in from of him. This is a super effective pose. The third casting is a commander figure and he is quite a stunner both in sculpting and execution.

The second set, **35033** is composed of two mini-

men hanging out of the side hatches of the Panzer IV. Their arms and lower bodies correspond to the Tamiya hatch openings.

All the figures have beautifully rendered details. All the head sets and intercom gear came through the molding process. The switches and wires are all just gorgeous. The level of detailing and quality are the best we've seen so far from Warriors. The faces especially are at the top of our chart in terms of fidelity. They equal or rival any other casting out there.

We also like the general approach to the subject matter. These guys are not just out for parade duty, but rather actually look like soldiers in the field. Both of the hatch door fellas wear the homespun high neck pullover so often seen in photos. One has his tunic open to reveal it and he wears one finger mittens as well. All the others wear a wrap around scarf and this bundling up would best place in them in a fall or winter scene.

All the Warrior's products are super new additions to the 1/35th figure market (not to mention the big guy) and all deserve the thumbs up stars and bars rating for a job well done. We can't remember having so much fun while being knee deep in resin dust. Available via Warriors, 543A South Raymond, Pasadena California, 91105. Price \$1295 each Phone 818 584-0573. European Distributors include Historex UK and Sud Modeles Diffusion in France. 25% and \$7.50 minimum post on direct.

35034, our fourth jumpin' Jack is posed seated peering cautiously at the end of his spoon. He comes complete with a highly detailed base that includes all his web gear laid down around him. Parts of brick rubble also adorn the base and make for a quite effective set piece.

All of these sky bandits are sculpted crisply and the definition of all the belts, pouches and equipment is superb. You're going to have a ball painting them.

Although the three sets are each available separately, they would all look fabulous posed together next to your favorite Sturmgeschutz.

Rounding out the 1/35th scale collection is what we think is the ultimate **German Tank Crew**. This is two different sets, one of which is designed specifically for

Wolf

WELL KNOWN FOR THEIR NICELY SCULPTED FIGURES, WOLF HAS presented three new releases for review. They are all German WWII—what else? Our description begins from left to right. The first contestant is a **German MG 42 gunner**, reference WAW 15. This guy has to have frostbite, he makes you shiver just looking at him! We really liked the pose and the look on this one. The way that the head is tucked into the torso and the manner in which the hands are drawn up to face truly represents the body language of "I'm cold man!" Not too much to mention about the uniform, but we particularly liked the fact that the upper portion of his great coat is extra crumpled, as it should be, due to the contortion of the pose. He wears padded winter trousers under his coat and the untucked pants are a nice touch of realism. We also like the fact that his extra MG magazine is sculpted hanging from his belt. He sports the full complement of equipment including a shelter quarter. Two grenades are tucked into his belt as a finishing touch.

A very nicely done MG 42 is included and this is complete with a molded on strap. Some may find this a bit on the thick side, but the way it's looped over would make it very easy to remove. A suitable replacement being made from thick foil or paper. This figure demonstrates well that it's still possible to produce classical figures in interesting poses.

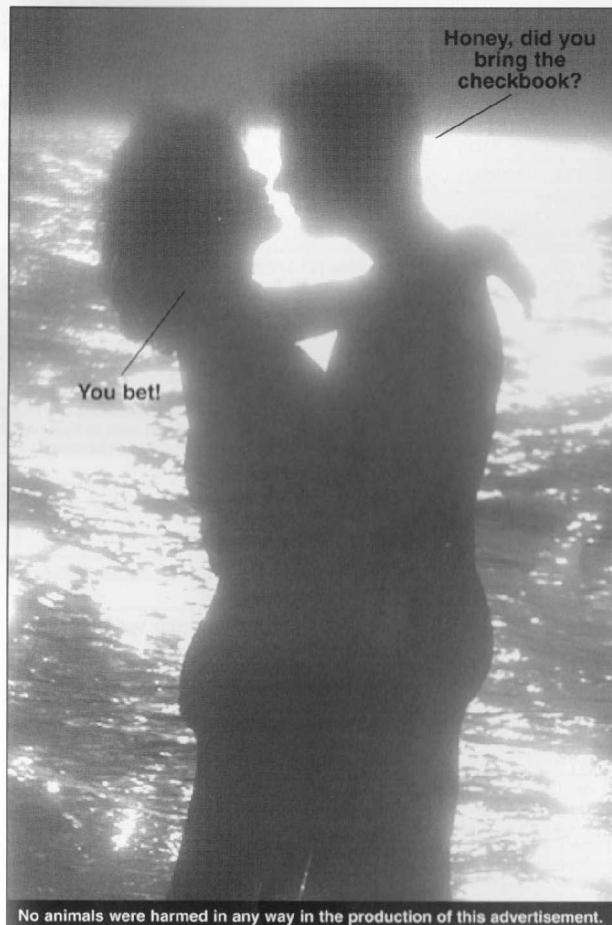
The second figure, WAW 13, is a **seated German soldier**. This is a relaxed attitude and he can go nicely on the side of almost any vehicle. He's got a nice set of hob-nailed boots, of which one sole is visible due to its pose. He wears the SS Tarnjacket and this has been nicely sculpted right down to the chest laces.

The last in the trio, WAW 14, is a **German Tanker** in cold weather gear. He comes with two heads, a nice touch. The one head has the M43 panzer crew cap with the side flaps folded down, the other a hood. You rarely see this latter item done on a figure and the option makes this a bit special. Due to casting difficulties caused by its challenging shape, a little trimming will be needed to fit the hooded head. He is wearing the padded winter trousers over the top of a panzer jacket which is shown completely buttoned up—another rarity in scale. The trousers are complete with finely detailed suspenders (or braces depending on which side of the Atlantic you reside!). He's in a relaxed pose holding a pipe. It seems like the Germans never went into combat without their pipes...

Super ultra highly recommended. Available via specialist U.S. retailers or through Hornet (address above).

—Compiled by Ken Dugan, Steve Roberts, Kip Rudge, Pat Stansell and James Welch





No animals were harmed in any way in the production of this advertisement.

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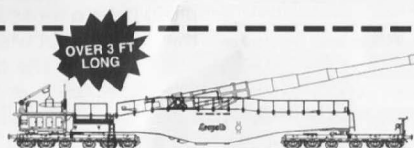
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WISH TO PURCHASE full set, or partial, of the AMM Review. Please state number of issues, condition, and price. Wish to purchase: ARA Miniatures; Jarreau figures; and Verlinden WW2 tank crews in metal. Price and condition to: Les Malihowski, 114 Fair St. Wld, CT 06492.

WANTED: Any 1/35th spare parts, figures, accessories, broken kits you no longer want. 1/35th Squadron Combat Line of white metal figures. R.P. Hunnicutt's Pershing. Doug Somers, 417 Harmony Drive, Wheeling IL 60090-6215.

FOR SALE: Tamiya M4A3EZ Jumbo built in the box with Accurate Armor rubber chevron track with the correct grousers, MB Models transmission cover; all for \$20.00 plus shipping. Tyresmoke Sherman rubber chevron track kit, unopened, \$15.00. Mark Stoeckinger, 18425 Clifftop Way, Malibu, CA 90265.

WANTED: One Heller 1/35th scale Renault R35 tank, unbuilt. Contact John Werner, 1300 Debbie Lane, Macomb, IL 61455.

FOR SALE: 1/35th Metal Artillery and resin accessories. PAK 38: \$25.00. LeFH 18: \$45.00. WWII US or German packs 20 pcs: \$6.95. Asst. crates 16 pcs: \$8.95. For current listing send LSSAE to: Mad Mac's Workshop. P.O. Box 430. Coventry RI 02816-0008.

WANTED—ESCI WWII 1/72 80 HND 83 series armor, ROCO WWII U.S. halftracks and armored cars. German WWII halftracks and armored cars. ESCI 1/72 hard plastic WWII figures. FUJIMI 1/72 hard plastic German Africa Korps figures and old Airfix, ESCI watchbox, ROCO, ROSHKOF and EKO catalogs. Also giant WWII figures. Jim Glynn 203 Old Allamuchy Rd, HP1.3 Hackettstown, NJ 07840.

FOR SALE: Model Kasten M002 StuG III Steel Return Rollers #1; M003 StuG III Steel Return Rollers #2; M004 Panzer III Road Wheels: all three sets for \$25 (half price!) plus postage; also discontinued Verlinden items, send 32-cent stamp for list. J.H. Randolph, 18425 Boone Road, Columbia Station, Ohio 44028.

WANTED: Correspondence with Modelers of WWI Armor. Contact: John Ketterman 913 Grand St., Fulton, MO 65251. 314-642-6671 After 5PM.

WANTED: ESCI 1/9 scale model kits, BMW R-75; Zundapp KS-750; VW TYP82 Kubelwagen; Triumph 3HW Solo. Call or write: R. Pedersen, Box 604 Dalton, GA 30722 (706) 275-6121.

WANTED: R.P. Hunnicutt's "Pershing". Willing to pay \$\$\$ depending on condition of book. Italeri crusader kits unbuilt. Also looking for reference books with lot's of pictures on WWII Italian men and equipment. Contact Mike McIlroy, 2411 Voorhees Ave. #2 Redondo Bch. CA. 90278 (310) 214-3714.

FOR SALE: MB Panzer III G-70; Azimut Panzer-Werfer 42-\$90; Sdkfz 234/1 20mm turret-\$30; Panzer IV J conversion-\$30; Airmodel 105cm artillery (for Panzer II WASP)-\$35; Modelkasten tracks Panzer I, Panzer III/IV and Panzer IV final production-\$25 each; Gunze Sanyo Hi-Tech Panther G-\$65; Heller Hotchkiss and Renault-\$25 each; DML Typhoon sub-\$15; Hummel-\$25; ESCI Sdkfz 10/4 20mm AA-\$15; Italeri Chaffee-\$15; M40 Italian SP-\$15; Nichimo Elephant-\$15; Tamiya Jagdpanzer IV Lang-\$15; Kettenkraftrad-\$15; Ford Mutt-\$10; Stuart-\$20; Jap 97 China-\$15; Su-85-\$15; M2A2 Bradley-\$25; Marine AAVP 7A1-\$25; Sdkfz 251/1 Stuka Zu Fuss-\$25; Patton-\$15 and more Tamiya, call! Mike Fredericks, 145 Bayline Cir., Folsom, CA. 95630-8077 (916) 985-7986.

FOR SALE: Odd ball/miscellaneous magazines/books etc. Over forty years of buying military books etc. Send THREE dollars for list of military/historical related books/magazines. Mostly WWII to now. Specify ODDBALL. THANK YOU! Bill Whitley, 311 Bundy Avenue, Endicott, NY 13760-3201.

FOR SALE: Collection of 150 constructed and painted 1/35th scale armour kits. Send self addressed stamped envelope for list of armor plus price to: R.J. Andrzejewski, 7320 Coventry Ct., Apt. 711, Naples, FL., 33942-6767.

WANTED: The following kits in 1/35. Tamiya's Horse Drawn German Field Kitchen. Tamiya's Mounted German Infantry. ESCI's Horse Drawn German Supply Wagon. Will pay for complete, unassembled kits—will consider semi-assembled. Steve Parker, 16418 Sky Blue Lane, Houston, TX. 77095.

FOR SALE: Limited number of Sherman Tank T-Shirts M, L, XL, \$5.00 + S/H, \$2.50. Send \$7.50 to Joe Yukna, 22 Park Place Way, Mashpee, MA 02649.

WANTED: Ballantine Illustrated History of WW2 paperbacks, particularly Destruction of Army Group Center and Carpathian Disaster. Tom Kanyak. 126 East Bennet St., Kingston PA 18704. (717) 283-1019.

WANTED: Osprey Vanguard #12, Panzerjäger and Sturmartillerie in good to very good condition. Possible trade for Vanguard #4; Fallschirmpanzerdivision "Herman Goring," the book is in very good condition. Will also pay reasonable price. Joe Rundell (303) 680-6583.

WANTED: the first 10 issues of the AMM review (issues 1-10). Please send information on price and condition to David Dees, 4504 E. Emort Road, Knoxville, TN 37938-3701.

WISH TO PURCHASE: Roskopf HO plastic Soviet & WWII German armor. Please write Christopher Gill, 580 W. Lewiston, Ferndale, MI 48220-1204.

WANTED: 1/72 scale (25mm) Italian WWII soldiers, armor, other vehicles and equipment. Also books on the Italian Army in the Western Desert and North Africa. Ken Moore, 851 Sheffield Road, Sheffield Lake, OH 44054.

WANTED: Tamiya 1/35th scale JSIII, built or unbuilt, must be complete. Contact Bill Vaneck 10731 S. Laverne, Oak Lawn, IL 60453.

WANTED: Issues 1-18 AMM Review. Photo copies will suffice. Will pay all copy and postage costs. Also looking for a copy of Model Art Magazine Special T-34, KV and the Almark book on the Panzer 1 & 2. Russell J. Hammond, 32533 Warren Rd., Garden City, MI 48135.

BID SALE: One mint copy of Hunnicutt's "Pershing" book. Starting bids at \$135.00. I reserve the right to refuse any and all bids. Contact David Marks, 254 fallen leaf Dr., Vacaville, CA 95687, 707-451-8266.

WANTED: Information about the interior of the Sdkfz 250/8. Photos & drawings, especially useful. Willing to pay for copies and shipping. Bill Rimm, 1228 Bannister Circle, Waldorf, Maryland 20602.

WANTED: FINE SCALE MODELER back issues to buy or trade for same: Spring '82, Summer '83,

Jan/Feb '84. MILITARY MINIATURES IN REVIEW: Pilot Issue. PLANS/PHOTOS: Sonder Anhang (special trailer) 57 for Sd Kfz 7/2. T-60 Soviet light tank mounting Katyusha launcher. G. Hill, 10387B South White Rock Road, Rancho Cordova CA 95670

SCRATCHBUILDERS WANTED: U.S. resin manufacturer wishes to contact talented builders possessing national competition level skills for master pattern work. Must be accomplished in the application of all techniques, including lathe and vertical milling. Send photos and a list of qualifications and awards to Box 94001, c/o Ampersand Publishing.

SELL: Mostly WWII armor kits and conversions (all 1/35th). TRADE: Have Gunze Pzr. III N and Peddinghaus M51 Isherman. Need Cromwell M10 Achilles and Replicast Sexton. Send LSASE for list to: Lance Bevins, 5429 Whisper Creek Ln., Wilmington, NC 28409.

WANTED: ADV/AZIMUT transfer decals, # 35700 German Divisional Signs, # 35701 German Tactical Signs, and #35702 German License Plates & Technical Markings. Please write me with prices for above. Jeff Douglas, 227 McLaurin Dr., Asheboro, NC 27203.

THE REAL THING! Armor/Military modelers take note. Guide to U.S. Army Museums and Historical Sites. Excellent resource for finding that vehicle, equipment or aircraft you want to study up close. Send stamped self addressed envelope or two stamps to: "Eagles Nest Publishing," 475 W. Stetson, #C-320, Hemet, CA 92543

FOR SALE: Collectible armor kits (Aurora, Bandai, Midori, Monogram, Peerless-Max, Renwal), diorama accessories (Verlinden), metal figures, aircraft, missiles, publications. Send 2 stamp SASE for list. Gerald Schroeder, 621 Chablis Dr., Kenner, LA 70065 (504) 466-0631

WANTED: In excellent unbuilt condition, Italeri 1/35th Crusader III. Jerrold Gustafson, 104 Washington Park Blvd., Michigan City, IN 46369 (219) 879-6729.

TRADE: Tamiya T-10 JSIII and Accurate Armor Sdkfz. 123 Luchs. **WANTED:** Verlinden 15cm howitzer & limber and 21cm heavy mortar; MB Models Soviet 203mm Howitzer and German siG 33 infantry gun. Send offer to Jeff D. Christensen, 310 North Pratt, Haviland, KS 67059 or call 316-862-7183.

WILL PAY any reasonable amount or trade photos from Ft. Knox or Aberdeen for photos on the following vehicles: KV-8, OT-34, KV-1S, Sturm-Infanteriegeschütz 33 15cm, WWII armored recovery vehicles. Interior photos of the following: T-34 1942 version, KV-1, KV-2, Panzer I and Panzer I command version. Scott Woodward, 7535 Southeastern Ave., Indianapolis, IN 46239-1316.

WANTED: Airfix 1/32 17lb. anti-tank gun with crew; Tanks Illustrated #19 Patton's Tanks; Vanguard/Osprey #10 Allied tank Destroyers & #9 British Guards Armored Division. I am willing to pay a fair price. Please contact: Kevin M. Batterman, 32-15 31st Ave. #1, Astoria, NY 11106; 718-626-9673 after 7 PM.

WANTED: to bookshops and individuals, I wish to purchase MILITARY MINIATURES IN REVIEW issues in good condition: Pilot Issue and Vol. 1, No. 1, 2 & 3, good prices paid. Also any issues of the AMM Review. I will also sell 1 Airfix 1/32 Crusader III in mint condition, \$30.00 plus postage and 1 Italeri 1/35 Bedford truck in mint condition, \$28.00 plus postage. Please write to: Antonio Spadaro, Via Dei Buonvisi 151, 00148 Roma. ITALY

Every subscriber to Military Miniatures in Review is entitled to a free classified ad for one year. Submit hand or type written copy (no chicken scratchings). There is no space limit, but be as brief as you can. Corrections, sales or omissions should be brought to the attention of the publisher as soon as possible, to prevent re-occurrence.

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If you have a message or a service that you would like to offer through this section, but wish to remain more or less anonymous, we now offer box numbers. The cost for subscribers is five dollars and the cost for non-subscribers and commercial customers is fifteen dollars. These rates are per issue and must be pre-paid. Responses are forwarded on a weekly basis.

MMiR Back Issues

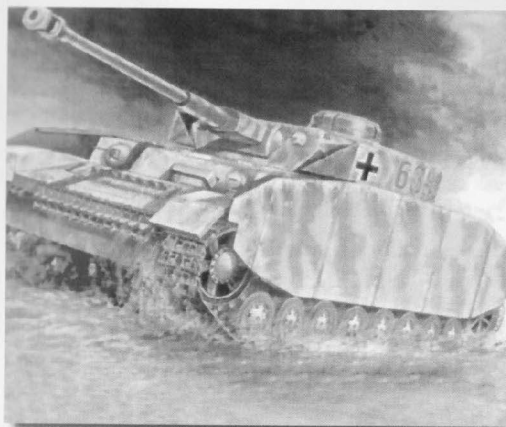
We're sorry to report (sort of) that we are now sold out of all back issues except for Volume One, Number Four. This is the issue with the SturmTiger on the cover. Remaining copies are \$5.25 plus \$1.75 postage for orders to the U.S. Priority Two-Day air is available in the U.S for \$3.00. The postage is \$3.00 for Canada and this is for Airmail post. \$4.00 for all other destinations surface mail and \$6.00 for Airmail.

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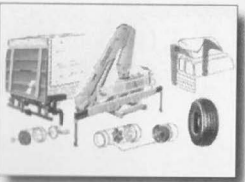
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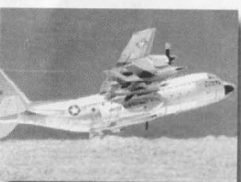
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303339 US Dark Green FS34079
303341 US Gray FS36622
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